An Introductory Address

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GENTLEMEN,—When the Dean of the Faculty of Medicine honoured me with an invitation to open the session of this college I accepted it with pleasure. He informed me that it would be my duty to deliver a short address to the students, and more especially to those of them who are devoted to the study of medicine. These students I heartily congratulate upon their selection of a profession. There are some worse professions, but there are few better, and to him who loves the work there are none better. Whatever the social rank, whatever the dignity, whatever the rewards of the profession, it possesses unquestionably one good thing, and that is hard work. From the day upon which you enter upon the special study of medicine to the day when you will lay aside the stethoscope and the thermometer your life will be full of hard and interesting work. You will have work, some with payment, some without payment; some with abundant gratitude, some with none. You will receive much that you will not deserve, both of praise and blame, but the distribution of the two, however unwisely or unjustly each be awarded, will be, perhaps, on the whole, not far from being a fair measure of your due.

That the treatment of the profession and the estimate of its work by the public are often unjust can hardly be questioned, and who can wonder at it when we bear in mind the usual education imparted in our schools and universities? By education is generally meant the study of books and of ancient literature, while nature and its laws, life with the forces which act upon it and the circumstances in which it develops and those in which it fades are disregarded. The elementary facts upon which science is built are considered as scarcely worthy of attention. They are treated as if they had but little concern with life and none with learning and scholarship. The result is that ignorance prevails with regard to those laws which govern our life and actions. This is the case generally, in the upper as well as in the lower classes of society, and ignorance and superstition in respect of medicine, of the power of drugs, and of the skill of medical men are as prevalent among the educated as they are among the uneducated classes. "Christian Science," with its claim to cure all diseases by ignoring them, flourishes most among the upper classes. Here it appears in gorgeous colours accompanied with the sound of trumpets, while at the other end of society it is found presenting a humble but obstinate front in the coroner's court or before the police magistrate in the persons of its loyal devotees known as the "Peculiar People." Besides these immaterial means of curing diseases such as inflammation, paralysis, toothache, tuberculosis, and cancer, there are a countless number of undiscovered drugs, known only to their proprietors and the officers of the Patent Office, which for good reasons are not made known to the public, each of which, according to the proprietors of, and believers in, these panaceas, has performed marvels in preventing and curing diseases, known and unknown, fatal and not fatal—indeed, it matters not of what nature, for all diseases, it is said, are cured by these undiscovered drugs. The astonishing fact is that any disease remains to afflict the human frame.

You ask me where I obtain these extraordinary facts. I reply: Look at any newspaper, daily or weekly, English or Welsh, religious or secular (among the latter, however, there are some notable exceptions), and you will find all that I have stated. You will see accounts of marvellous and impossible cures and statements of effects produced by drugs which everyone possessed of the most elementary knowledge of the laws of health and of the processes which take place in the living body knows to be entirely devoid of foundation. Nevertheless, these statements are published broadcast, day by day and week by week, in newspapers which profess to teach and to lead the public and to form public opinion. These newspapers are the property of men who hold more or less influential positions and are respected in the country. They are edited, some by clergymen, some by ministers, and some by laymen. The statements which I have referred to are sanctioned, by silence, in speech, or in writing, by all concerned in the publication of these journals. They occasionally contain testimonials to the wonderful virtues of the advertised drug, and these emanate from all manner of men, some of whom are probably, like the historical camel, evolved in a garret, while others hold positions and make professions which would lead one to expect that they would not be guilty of attaching their names to, or be a party to publishing, anything for the truth of which they could not vouch. Now and again a bard in a frenzy of inspiration pours forth in rhythmic or alliterative measure the wondrous works of quackery and the miracles of ignorance. When I find the religious newspapers of the Principality besmeared with such advertisements as I have referred to, some of them not only false but foul and wicked, I cannot help feeling the blush of shame as I bear in mind under whose ægis they are published. The faithful, finding them in their weekly guide, accept them without question and act upon them as truths tested by the standard, sanctioned by their party oracles and sealed with their approval. How long will this continue? So long as the practice will pay the manufacturer and purveyor? Is it not possible to cause the purveyor at least to realise the character of the material to which he forms the conduit from the manufacturer to the purchaser? If this be not possible then the remedy must and will be found in the education which, if not now, will by-and-by be given in our schools. Let the elements of science, the laws of growth and decay, and the laws regulating the functions of the living body be taught in our schools and our young men and young women will themselves be able to estimate this mephitic rubbish at its proper value.

Meanwhile, however, and notwithstanding what I have just said, I congratulate you upon the choice of a profession, for it is a noble and an ennobling one. The circumstances and surroundings in which you will be placed for the next five years will tend to foster in you, if not the graces and polish of society, yet those qualities which are usually admired—sometimes laughed at—but never laughed at either by rich or poor when they are the victims of suffering and disease—and these afflictions come to poor and rich alike. To poverty and pain, suffering and sorrow, disease and death you will pay your daily visits. Your work will be on the dark side of life—not seductive, is it?—but this will enlarge and widen your sympathies (not of the frothy sentimental variety), whet your wit, increase your resources, and humanise you through and through. Yes, gloomy as the prospect appears, you are to be congratulated, provided you are made of the stuff of which good doctors are made.

Now, what are the qualities which are necessary for the exercise of a profession whose work is such as I have indicated? They are many, but I shall be able to refer to two or three of them only. Some of them are gained only after a long training and large experience—"knowledge comes but wisdom lingers"—while others should be possessed from birth or acquired in early life. Of the latter the first is health—a sane mind in a healthy body. To the boy destined for the medical profession good health is essential—in the first place to enable him to bear the physical and mental strain made upon him by the training through which he will have to pass in order to qualify, and in the second place by the physical demands and mental anxiety arising from practice. Success in medicine, as in some other professions, means survivorship, and survivorship usually means a good physique. A man with feeble health may be a great preacher, a great lawyer (though I can hardly imagine him to be a great pleader), a great writer, or a great scientist, but he cannot be a great medical practitioner, for disease and suffering recognise no office time or any day of eight hours. The medical man must be ever ready and ever active and must know no fatigue. But I hear you say, "Health is inherited, a sound constitution cannot be acquired." This is true in a great degree, and a lad of feeble health would do wisely to eschew the profession of medicine. It is, however, also true, that good health may be destroyed, that bad health may be made good, and that a

feeble constitution may be strengthened, especially during the period of childhood, boyhood, and early manhood.

Some years ago elementary schools were not so numerous in the country, or perhaps so efficient in some respects, as they are now. I cannot vouch for the accuracy of the latter part of the statement, for I am speaking of that happy time, for schoolmasters as well as for boys, which preceded the period of periodical inspections and payment by results. For the reason which I have mentioned children had to walk to school from one to three miles in the morning and home again in the evening, carrying with them their midday meal. To accomplish this distance a boy took from an hour and a half to two hours in the morning. He reached the school-room at 9 o'clock and was supposed to work until 12 o'clock. Then followed a relaxation from work lasting two hours, a few minutes of which was occupied in partaking of a very simple meal, but a meal which was consumed with a relish and an enjoyment which many a luxurious epicure would give all but his dinner to possess. This meal, frugal as it was, was ample for the child's requirements. Then came the great pleasure of the day, hockey, football, or hare and hounds (cricket was unknown in country schools in those days), than which no exercises, games, or gymnastics are better calculated to develop all the organs of the body in a healthy manner. Thoroughly refreshed but untouched by fatigue the boy entered school again at 2 o'clock and remained until 4 o'clock. Then came the journey home, which occupied in winter at least two or three hours and in summer from three to four, with all its delightful incidents, unbeclouded by the thought of a home task—a new imposition condemned by every healthy-minded boy. The boy never took the straight path (boys never do) or the shortest route. His curiosity, his inclination, his spontaneous energy, call it what you will, led him to deviate to the right and to the left from the normal course. He, moreover, required amusement and play after his exhausting labours in the schoolroom. There were various objects of interest which had to be visited on the way home. In a pool a mile up the stream on the left was the old trout, which had to be tickled or presented with various cunningly-devised invitations to land, to which his wariness never condescended to reply. On the right was the track of a hare. This had to be carefully inspected, while the discovery of a gin was a source of intense enjoyment and the division of its string afforded a doubly exquisite pleasure, for it ensured "puss" a free run and baulked the cunning and skilful poacher in his nefarious designs. Then the nest of an old crow upon a high and solitary tree should not be forgotten. It was some distance off, it is true, but it demanded a daily visit in the spring of the year, and the strongest and bravest boys climbed up in turn to inspect and count the eggs and in the end generally to rob the nest. This would sometimes lead to a falling out—an event which is said to happen not rarely among thieves, but in this instance the honest bird did not come by its own. The encounter took some time to come to an issue. Unfortunately the morning told the story of the evening and this led to the application of the appropriate but unpleasant remedy. This old remedy has now gone out of fashion. Some of you may have known such delightful school-days, while others may have not, but may from early days have been subjected to the dull continuous grind which is productive of a precocious and showy but feeble mind, coupled with a body one would not accept as a gift. Such a boyhood as that which I have described braces mind and body, strengthens weak frames, and makes healthy youths. I confess that I look back upon this period in my life, not only as one of the pleasantest and brightest, but also as one of the best spent, for its effects have been my mainstay during the rest of my career. As so much may be done during boyhood and early youth to establish health and to lay in a store of strength which will serve your turn through life, I would urge you to seize opportunities for physical exercise, for I imagine that during your sojourn here these opportunities will be abundant. When you shall have left Cardiff and have gone for your further training to London or elsewhere you will find such opportunities scanty by reason of the fuller employment of your time as well as the distance of your lodging from the green fields.

The training of a lad for the profession of medicine cannot be begun too early, and particular attention should be paid in his case to that part of education which should, in a greater or less degree, be the possession of every youth whatever his position in life when he leaves school—the training of his senses. All boys should be trained to use their eyes, their ears, and their hands—for it may be said of many, "They have eyes but they see not, and ears they have but they hear not"—and to acquire manual dexterity. Every lad should be taught early to use his eyes, to see and recognise the various objects, living and dead, which nature so bountifully supplies in earth, air, and water. To a medical man this training is of special importance, for the faculty of observing is one of his chief aids. Without it he is helpless, he is not fit to visit or to treat the sick. The cultivation of this sense cannot be begun too early. I will illustrate its value, not from a professional visit to the sick-room, but from an entirely different phase of life.

A party were once upon a coursing expedition, but their wanderings in search of the hare had proved fruitless. Like incompetent craftsmen who blame their tools they blamed the land and the farmer, for they had come to the conclusion that there was no game on the land and that the farmer was a poacher. Disappointed and despairing of sport they were on the point of giving up the search when a man approached who was known to one of their number as an accomplished poacher. He said to the new-comer, "Dafydd, swllt am scwarnog." "Yn wir?" queried Dafydd; "cewch, yn wir," was the reply. Satisfied as to the ability and willingness of the would-be sportsmen to pay the shilling Dafydd walked quietly around and in a few minutes the cheery cry of "See-ho" fell on delighted ears. The hare was coursed and caught, thanks to the dogs and the cultured Dafydd. "Swllt am un arall," and in a short time the same pleasant cry was heard again. This illustrates well enough the difference between the trained and the untrained physician when visiting the sick-room. The sportsmen with the untrained eyes had walked over the land the whole day and had seen nothing, while the poacher, whose delight in the daytime and on shining nights had been the study of "puss" and her habits, whose eyes had been trained from boyhood to discover her on her form and to watch her on her quiet or hurried rambles or gambolling with her mate in the light of the queen of night, readily and surely discovered her hiding-place. The experienced and cultured physician, in like manner, when he visits the sick-room sees at a glance those visible signs which reveal the past and lift the veil which hides the future, while the untrained man sees nothing and learns nothing—to him the past remains a blank and the future hidden.

Again, every child should be taught to use his ears and his hands. Singing is in some degree taught in most schools; drawing, with some amount of handicraft, might also be taught with great advantage. Children are taught to play on the violin, harp, or piano from early years. A small fiddle is obtained for the little fingers which cannot stretch over the stops of the finger-board of the full-sized instrument. It is only by beginning his training at an early age that one becomes an accomplished performer on one of these instruments. A touch, a stretch, a strength of finger, and a certainty are thus acquired which cannot be gained in later life. The ear also is trained to distinguish and appreciate sounds in their tone, pitch, volume, and character. By training the hands a manual dexterity with a delicate sense of touch capable of appreciating slight vibrations and slight differences of resistance and elasticity are acquired, all of which are of the greatest value to the practitioner in the diagnosis and treatment of disease. A trained hand can often by palpating the chest alone discover the seat and sometimes the nature of disease, while its use in the diagnosis of disease in other cavities is constantly called into requisition. A trained ear, again, is of no less importance in the detection and appreciation of the various sounds which are produced in the different organs of the body both in health and disease, and it renders possible a diagnosis of the nature, seat, and extent of diseases which would not be possible without its aid. Training of the eyes and hands is as essential to a medical man as it is to an artist, and training of the ears and hands is as necessary to him as it is to a violinist or a pianist. The education in elementary schools should be a training and not a cramming, such as it is apt to become when estimated by so-called results. It should be a training calculated to help a lad to live a better, a happier, and a more intelligent life in whatever station he be placed. It should be the same for all. No difference should be made between the education of the son of the labourer, or the son of the farmer, of the parson, or of the medical man.

To the delightful pursuits I have mentioned must be added, when the lad has passed to a higher school, others of a different character. Books will then be his chief, although perhaps not his only, study. It becomes a question whether in these schools a difference should be made in the education of youths destined for different callings in life—whether that of one should be on ancient lines and that of another on modern lines, that of one classical and that of another scientific, or that of one literary and that of another commercial. It is still held by some that the best preparation for all professions is a classical education, but the more general opinion is that a difference should be made and that other subjects should be taught in addition to Greek and Latin. In many of our schools there is an ancient side and a modern side, and boys destined for certain pursuits are placed in the former while others who intend to follow other vocations are placed in the latter. For all, however, for whatever calling they are destined, a certain general training is given. The subject, however, which is of interest and of importance to you is what is the best, or at least the best attainable, general training, the best attainable culture, for a boy who prepares for the study of medicine. The answer to this, made long ago and partially acted upon to this day, is a classical training. This answer, however, should be reconsidered in the altered state of medical knowledge.

In the higher schools a great part of a lad's time is devoted to learning the Greek and Latin languages and to making acquaintance with their literature. Greek was for centuries the language of Christianity and philosophy and it was also the language of theology and science. At a later period the discovery was made that the dogmas of theology could be rendered in Latin, and therefore Latin became the language of the Church and of science. It continued to be such until comparatively recent times. In these two languages, after the revival of learning in Western Europe, was enshrined practically all learning. Greek and Latin became known as the learned languages, and a knowledge of these languages was necessary as an introduction to the learning and "scholarship" of the time. This educational *régime* ruled up to a period not long passed and all boys who received a higher education, whatever their pursuit in life, had to learn the learned languages. I have not a word to say against classical scholarship, but there is much to be said upon the question whether a boy preparing for the medical profession should devote several years to acquire a knowledge of the two languages. The training for the three professions of theology, law, and medicine is in many respects much alike. There is a special training for each, but before this is entered upon a course of general training has to be passed to fit every candidate for admission to either of the three—for the pursuit of his special studies. For the three professions this general training is, and always has been, much the same. Take the clerical profession. The preparatory training is chiefly, if not entirely, a study of Greek and Latin and their literature. This study is pursued in the higher schools and afterwards in the university. When the university course is finished the aspiring cleric, in the best arranged schemes, enters a school of divinity to study his special department of learning for two years before he obtains a licence to practise his profession. In the case of the clergyman the whole course of his education, from the time he enters a higher school, is a preparation, a special preparation—as special a preparation for the study of his special subject as the study of science is for the special study of medicine. In the case of the law the preparatory studies are the same as those for theology, a knowledge of Latin being essential to a learned lawyer.

What is the value of a knowledge of Greek and Latin to a professor of the art of medicine? I will tell you in the words of a distinguished writer and scholar who has recently passed away: "As to doctors, can we gravely admit that they ought to understand the language in which their prescriptions are written, and that they find it instructive to read Galen and Hippocrates in Greek? To men of science it is pointed out that their ever-increasing technical terminology is systematically formed from Greek and Latin words. This is true: and it is also true that a man of science might obtain a perfect grasp of this terminology by means of a list of words that he would learn in a day and the use of a dictionary that he might acquire in a week." Although useless to the medical man in his profession, however, yet it may be necessary to know Greek and Latin in order to understand English, to develop the mental faculties, and to gain general culture—then, indeed, it is worth even the medical man's while to devote the time to learn these two languages. I will let the same writer reply again: "The fact is that the study of Latin (for Greek, except in respect of scientific terminology, has much less to do with the question, and would hardly have been placed on a par with Latin here but for the hasty and random way in which the stock arguments on the question are continually repeated) cannot tell us what the English language is; it can only help us to understand how it has come to be what it is. In order to learn to speak English with accuracy and precision we have but one rule to follow—to pay strict attention to usage." But it is said, "If we do not teach a boy Latin or Greek we cut him off from the highest literary enjoyment, and we prevent him from developing his taste by studying the best models. It would avail little to call in question (had I space and inclination to do so) the surpassing excellence of ancient literature. For my purpose I must regard this point as decided by an overwhelming majority of persons of culture. But it will not be denied that in the English, French, and German languages there is a sufficiency of good literature to fill the leisure of a person engaged in any active calling, a sufficiency of work calculated to give a high kind of enjoyment and to cultivate very adequately the literary taste. And if such a person was ever visited by a painful hankering after the time-honoured volumes that were sealed to him, he might console himself by taking note how often his contemporaries who had enjoyed a complete classical education were in the habit of taking down these masterpieces from their shelves. For I cannot help thinking that classical literature, in spite of its enormous prestige, has very little attraction for the mass of even cultivated persons at the present day. I wish statistics could be obtained of the amount of Greek and Latin read in any year except for professional purposes, even by those who have gone through a complete classical curriculum. From the information that I have been able privately to obtain I incline to think that such statistics, when compared with the fervent admiration with which we all speak of the classics upon every opportunity, would be rather startling." The fact seems to be that, with comparatively rare exceptions—and those are not in the professions—a classical education is pursued not for the culture which it gives but in order to acquire the instruments for special pursuits in after life, such as theology, law, philology, history, archæology, the profession of teaching, &c. Those who prepare for such pursuits specialise from the first, for they devote themselves from the beginning of their education to gain command of the instruments with which they work in after life, while those devoted to science are made to learn that which is of little or no use to them in their after-pursuits. For the latter and to a lad destined for the medical profession matters at present are still worse, for what command does he acquire over the Greek and Latin languages? Greek is not now compulsory, while the knowledge of Latin demanded of the medical student is so small that it does not enable him to read the easiest Latin book except with difficulty and with the aid of a dictionary. The time—a part of six or seven years—devoted to gain such an accomplishment appears to be wasted. What, then, should a boy destined for medicine learn before he begins his special studies at the age of 17 or 18 years? I should say that in addition to those subjects which are generally taught in schools he should have a thorough course of the English language and literature. This will do more to train his intellectual faculties, to give him a command of language, a vocabulary, a taste for good literature, and a culture far larger and better than he can obtain by acquiring an elementary knowledge of Latin, which will be of no use to him, is too scrappy to be a source of intellectual enjoyment, and which will in a short time be forgotten. French and German should also be learned, and I believe the power of reading both languages with ease could be acquired in the time now devoted to learning Greek and Latin. A knowledge of these two modern languages is essential to a practitioner who is desirous of being among the leaders of his profession, for the work done in the laboratories and hospitals of France and of Germany is of such a high order that no one who is ignorant of it can be considered abreast of medical knowledge.

There are, however, some among you who are fortunate enough to have another accomplishment—a knowledge of the

Welsh language. You should study it with the same care and minuteness as you study English, or as you would study Greek and Latin were you devoted to classical pursuits. In the time which you now devote to Latin and Greek you would acquire a thorough knowledge of this ancient tongue. I am not in a position to compare or contrast the value of Celtic with that of classical studies—your professor of the Welsh language might do that for you—but there are certain distinct advantages to you in the study of Welsh over the study of the dead languages. You already possess a more or less large vocabulary of the language; you can speak it; you know its idioms; your ear has been trained to its accentuation, the inflexions of its vowels, and the mutations of its initial consonants. A knowledge of its grammar can be gained without much difficulty. Prose composition will prove a pleasant and improving pastime, and if verse-writing be of any value in education you may indulge in it with at least the feeling that you know the material in which you are working and that you are not arranging words of whose meaning you have no full appreciation in a form of which you have still less. The alliterative *pedwar mesur ar hugain*, together with the numerous rhyming measures in the language, will give you an ample field for the exercise of your vocabulary and for the display of your skill in polishing sentences. Translations from English into Welsh, and from Welsh into English, and from French and German into English and Welsh will further add to your linguistic skill and give you accuracy in the use of words. The Welsh language, moreover, will introduce you to a valuable and interesting literature, unknown to, and unappreciated by, our neighbours between Offa's Dyke and the German Ocean, while it is the subject of study to scholars in Western Europe. As a means of culture the language and literature of Wales have not been duly appreciated in England, or, indeed, in the Principality itself. Some years ago a request was made to the Senate of the University of London that Welsh as well as French and German should be recognised as a voluntary subject in the matriculation examination. Together with others I wrote to some members of the Senate stating the reasons why I thought that that body should accede to the request. Among those reasons were: (1) that a number of the candidates for the matriculation examination were Welsh lads many of whom habitually spoke Welsh while some did not speak English until they were 13 or 14 years of age; (2) that the whole of the examination was conducted in a language foreign to these lads; and (3) that consequently they laboured under a great disadvantage when compared with English candidates especially and even when compared with French and German candidates, for although English was a foreign language to French and German boys each could select his own language as a voluntary subject. One of the members who appeared to take some interest in the subject replied by asking, "Where are examiners to be found?" The foundation of the Welsh University has removed this inequality, and the Welsh boy may now study his native tongue with the feeling that his knowledge of Welsh language and literature will receive due recognition in the schools of the university.

The course of instruction which I have indicated will, under the circumstances in which you are placed, and especially by reason of the limit of time which you can devote to general subjects, do far more for you than a fragmentary knowledge of Greek and Latin. It will develop your intellectual faculties, it will furnish you with a large store of linguistic and other knowledge, and it will introduce you to the best literature and the highest culture. It will, moreover, place you in the best position to begin and continue your professional studies, it will enable you to follow the progress of medicine in after life, and it will furnish you with an inexhaustible store of intellectual enjoyment from which you will be able to draw at will in the leisure hours of your active life. While, however, you pursue these general studies a part of your time should be devoted to acquire an elementary knowledge of the natural sciences so that when you go to college you may be prepared to enter upon those studies which bear directly upon your profession. You should possess an elementary knowledge of the principles of physics, chemistry, and biology, have a grasp of the general character of science, and be disciplined more or less in the methods of all sciences, so that in your first year at college you may be able to take full advantage of the means of study there afforded to you. There you will pursue the study of anatomy, physiology, and chemistry which will fit you for your further studies in the wards of the hospital. Facts will be pointed out to you and you will have to find and see them for yourselves; their relations and classifications will be indicated to you and you will have to verify them; your minds will be trained in scientific methods. This will occupy the first three years of the curriculum, and then, if you have been diligent, you will pass on to the supreme stage—the study of medicine. In the wards of the hospital you will have to study disease in its relations, its causes, its onset, its course, its terminations, its prevention, and its treatment. You will not only be required to see and to realise what is pointed out to you but you will also be required to learn how to see and discover for yourselves, to observe symptoms, to discover signs, to classify them and reason upon them—work in which not only your trained intellect but also your trained senses will be called into full exercise. If you shall have availed yourselves of the opportunities of learning offered you during the three years you will have passed in college you will find your knowledge of disease and your skill in detecting its seat and nature grow apace. Most of your time will be spent in the out-patient rooms or in the wards, performing your duties as clerks or dressers or attending the physicians and surgeons on their daily visits. You should, however, not be satisfied with discharging the merely obligatory portion of your hospital duties. It is said that the best way to know a man is to live with him. It is equally true that the best way to know disease is to live with it, to reside in hospital; and it should therefore be the aim of each one of you to hold a resident post as house physician, house surgeon, resident obstetric officer, either one or all. Such a post will give you in a few months an amount and a kind of experience that private practice will not furnish. It will give you opportunities to watch the progress of disease from hour to hour, to observe closely its features, follow its fatal footsteps, or hail the amelioration of its severity under the treatment administered and the restoration of the patient. Moreover, you will be working under the eye of your master physician or surgeon; you will be required to "get up your case" fully and thoroughly and to record its progress from day to day. This will implant in you careful and methodical habits which are invaluable in the practice of medicine.

There are a few more words I should like to say. You should cultivate independence of character and freedom of thought. The two generally go together and both will be essential to you in the practice of your profession—both for your own comfort and for the good of your patients. The curriculum which you will pass through will tend to foster these qualities and your experience in hospital and in practice will tend to strengthen them. Tradition has no authority in medicine. I have already referred to the ignorance of science and its methods which prevails generally. Ignorance is rarely modest or doubting; it is dogmatic and credulous. You will find it often a source of great annoyance to yourselves and of infinite mischief to your patients. For your own happiness you should cultivate that absolute indifference to the chatterings of incompetence which is based upon a thorough knowledge of your profession, a complete grasp of your cases, and a rigid adherence, undeflected by outside considerations and influences, to the evidences of your senses and the dictates of your reason.

From the day on which you enter the hospital until your course is finished, the circumstances in which you will be placed and the influences under which you will work will arouse in you the feeling of humanity and foster its growth and development. It is scarcely possible for you to walk the hospital without becoming infected with the contagion of sympathy, but the sympathy is not of that variety which evaporates in sentimental speeches on platforms and finds its reward in publicity. It is of more lasting stuff. It is not the sort which shows itself in cries of impotence in the presence of difficulties and flees from the presence of suffering. The sympathy which will be yours is at its best in the presence of suffering and danger. These serve but to strengthen it. It is not a sympathy for fine days and holidays, processions, and public meetings; its work is amidst the storms of life; there is no place for it amidst the frivolities. It seems as if asleep or dead when there is no work for it; it is aroused only by the call of distress, to which its response is never wanting, and when aroused it is always to some purpose. I cannot illustrate this better than with the old story of the

man who had fallen among thieves. There he lay by the roadside, stripped, robbed, beaten, wounded, bleeding, unable to cry for help, and left half dead. By chance a wealthy and a holy man came down that way and when he saw the sufferer he passed by on the other side; and likewise another who came and looked upon him and passed by on the other side. Lastly, a man with an ass came where he was, and when he saw him he had compassion on him and went to him and bound up his wounds, pouring in oil and wine (the antiseptics and healing drugs of the period), and set him on his own beast and took him to an inn (the nursing home of the day) and took care of him. I verily believe that this good man must have been a doctor. I know of no finer example of that sympathy of which I speak and which you should not fail to cultivate.

An Address
ON
SOME PROBLEMS OF TROPICAL MEDICINE.

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GENTLEMEN,—When in compliance with the request of Dr. Patrick Manson I consented to deliver to-day the opening address to the students of this School of Tropical Medicine, I felt that I was committing myself to a task really beyond my powers. This feeling was deepened on glancing over the formidable syllabus of lectures and demonstrations to be given by the teaching staff. The ground to be covered is so vast, the subjects to be dealt with are so very important, the extensive and diversified knowledge required both in teacher and student is so deep and so wide, as to make one's own ignorance painfully apparent to oneself. I therefore find comfort in the fact that I am here to-night because I am an administrator, not because I am a doctor of medicine.

I understand that the objects of this school are to convey to its students a special acquaintance with the diseases that are of most frequent occurrence in tropical regions and to train them for the investigation of such maladies on systematic and scientific lines. There is excellent reason for believing that Her Majesty's Secretary of State for the Colonies took very seriously to heart the deplorable mortality among public officers and others in our more unhealthy tropical possessions. The calling into being of this school is but one of the many means devised or fostered by the Right Honourable Joseph Chamberlain for curtailing the death-roll of our fellow-citizens in those insalubrious over-sea territories of the empire. This school is but one link in the chain, and the chain is already a long one and it promises to be continuous.

THE TRAINING OF COLONIAL MEDICAL OFFICERS.

The leading idea of the school, therefore, is the appropriate training of colonial medical officers. It is, however, to be hoped that others may take advantage of it and that it may add another ring to the ever-widening stem of the already gigantic tree of medical knowledge. It is certain that there are a great many people in this country at the present moment suffering from what are usually called "tropical diseases," and that these sufferers are not, and cannot be, attended by medical men who have had tropical experience. Very many of these patients must come under treatment by the ordinary medical practitioner. Cases could be adduced in which some of the most distinguished men in the medical profession in this country have been completely at sea as to the exact nature of certain tropical diseases and their sequelæ. The teaching supplied by such a school as this should be a useful addition to medical men practising in this country, especially if cases of tropical diseases in sufficient numbers can be made available to them for clinical study. The list of students who have passed through the courses since Oct. 1st, 1899, does not show, however, that the school is patronised by the British medical practitioner. Taking into account the already immense and still growing traffic and the rapid and steadily accelerated communication between this country and the tropics, and bearing also in mind the intolerance of any form of quarantine in the United Kingdom, the probabilities are that the special study of tropical diseases will constantly be more and more forced upon medical men in practice in this country, either by the systematic study of such maladies at the ordinary schools of medicine or at specific institutions such as this. If this branch of medicine is neglected, then the sufferer from the tropics will be a certain loser, but not always the only one.

At the present moment, however, many of us are very specially interested in this school in relation to the medical services of our more unhealthy tropical colonies. It is probably the case that not a few of those who have so far passed through this institution were already familiar with many tropical diseases, knew them by experience, and understood how to treat them. To students of that category the clinical studies of these maladies here is not nearly so important as is the training to be had to fit them to investigate tropical diseases on the spot, on the most advanced systems known to medical science and with a full knowledge of what has already been done in these matters in this country and elsewhere. Any average medical officer who has sufficient training in making investigations of this kind will soon master the practical details of all tropical diseases in his district, provided that he is given time, the necessary instruments, and proper accommodation. The best and most proper place for making such researches is undoubtedly the tropics themselves. It must be patent to every person who thinks at all on the subject that the training of medical officers to carry out investigations of this kind is of the utmost importance to each colony, to the empire, and to humanity at large. We all know, or ought to know, what has been done in this field by such men as my late highly esteemed friend Dr. Bancroft of Brisbane; by the distinguished Dr. Patrick Manson, the inspiring genius of this school; by the father of Strachan's disease, the present chief medical officer of Lagos; and by many others who have practised medicine in the tropics. These men had no specialised opportunities given them; they had not the advantage of any systematic training such as is offered now at this school. We are therefore justified in expecting a great deal from the younger men who now come forward here to learn at once the most suitable and the most advanced methods of conducting original investigations in the great and rich tropical field.

STATE ENCOURAGEMENT OF MEDICAL RESEARCH.

But I can tell you that this training and preparation will not yield all that we are justified in expecting from it without the coöperation of the Secretary of State for the Colonies and of colonial administrators. The trained medical officer must have time and opportunity granted to him. That the Colonial Secretary will in every possible way encourage and suitably recognise the researches of medical officers may safely be taken as granted. It is, however, at times a very difficult matter for an administrator so to arrange service affairs as to be able to grant to medical officers the time so necessary to carry on scientific investigations of this kind without their being submitted to grave or destructive interruptions. Colonial administrators and others in high authority have not always in the past lent to the head of the medical department the support required by him. They have not always given to their chief medical officer the confidence that Alexander the Great extended to his. I was myself very fortunate in the first new country in which I served in having as chiefs such enlightened men as Lord Stanmore and Sir William des Vœux. Whatever was really required for the new medical service in Fiji was granted. As one result of that there is no doubt that at the present moment the chief medical officer of that colony, Mr. Glanvill Corney, is thoroughly familiar with the practical aspect of every disease met with in that country. Many other colonies have been less fortunate, but if that is so now Mr. Chamberlain, who not only thoroughly understands the value of medical work but also takes the deepest interest in it and has done more than any other person ever did before to popularise scientific medicine, is just the man to see that medical matters are put right wherever they are wrong. They are, in my humble

opinion, wrong where original work cannot be done. My own personal experience has been that the most unhealthy colonies are, or were, those in which medical research was most neglected; that, however, is apparently being remedied everywhere. In Lagos, for example, no fewer than 10 full equipments for medical officers of the scientific type have been provided by the Secretary of State for the Colonies. An excellent laboratory has been built and an analytical chemist has been appointed. This has been done there without any reference to any school of tropical medicine, and would have been carried out precisely the same had there been no such institution and no medical commission in existence. We look, however, to this school now, as a means of better enabling our medical officers to take advantage of the opportunities that will henceforth be given to them in Lagos, and no doubt similarly in other colonies, for you may depend upon it that colonial administrators will know their duty sufficiently well to follow with zeal the course that has been taken by Mr. Chamberlain. Moreover, there is at the present time in this and other countries a volume and force of public opinion behind sanitary and medical work that has, perhaps, been dormant from the days of Moses and Machaon till now. It was only the other day that the celebrated Grassi lectured on malaria before the Queen of one of the Great Powers of Europe. Such an event is redolent of the times.

It is not my intention to occupy your time in speaking of the details of your training for the investigation of disease, beyond emphasising their very great importance. I would rather in a familiar way give those of you who have not yet practised in the tropics some idea of the extremely interesting and very important work that awaits you there.

OLD DISEASES AND NEW RACES.

You will still, for example, have many opportunities, especially in new countries, of acquiring valuable information respecting the original or natural location of disease, the landmarks of which are fast disappearing before modern civilisation. You will see how old diseases are being communicated to new people and you will be able to watch the strange results that are thus produced. You will doubtless be in a position to add much to the existing knowledge of tropical diseases already more or less studied, and you will in all probability be able to establish the existence of maladies at present unknown and unrecognised; you will thus reduce the sum of human suffering. Can any man desire greater glory than this? As different forms of disease were localised originally, and still remain more or less so, it follows that the experience of tropical medical officers differs largely according to country. Their opportunities are therefore diversified in an unusual degree. Perhaps I may personally have had exceptionally good opportunities of assisting—as a French writer observed some time ago—at the dissemination of disease among new races.

TYPHOID FEVER.

The late Sir Thomas Watson was very anxious to know whether typhoid fever was known in Polynesia. From inquiries made there in 1875 it appeared certain that this disease did not occur in the islands. In 1875, however, a case was observed in a gentleman recently arrived from Australia. It assumed the virulent form that is accompanied by petechial spots, and the patient died. Soon after this a case occurred in a European in the mountains of Viti Levu. The disease, it appeared, had been contracted in the locality where the first case was treated. Sporadic cases were met with at intervals, but they were, formerly at least, few in number. Perhaps their scarcity was largely due to the fact that houses were supplied by rain-water collected from the roof and stored in metal tanks. There was, however, a form of continued fever in Fiji that very accurately simulated typhoid fever up to the ninth day, when it suddenly culminated and the patient got well in a very few days. Typhoid fever was also unknown in British New Guinea. In that country the continued fever that in Fiji so closely resembled typhoid fever was not met with. Typhoid fever is also absent in West Africa. It would appear to be a by-product of civilisation, which is perhaps also true of cancer, diphtheritis, and some other diseases. Fiji, by the mere fact of becoming occupied by a considerable number of Europeans, was a centre for the distribution of other diseases to her neighbours; but she sometimes received their maladies in return, as will be seen from what follows. The disease of yaws has been from time immemorial endemic in Polynesia. If a Fijian child escapes yaws terrible results are expected to the future health of a being so abnormally constituted. Yaws represented our measles, scarlet fever, chicken-pox, diphtheritis, and whooping-cough in one.

YAWS.

The probability is that no medical officer will be long in the tropics before he is brought into contact with yaws. This disease, like most others in the torrid zone, is of course parasitic. I first met with it in the Seychelles Islands, in African slave-children liberated there by our cruisers and indentured as plantation labourers. It is curious that this disease is much more mild in the African and the Papuan races than it is in the Polynesian race. It may be that it is newer to the latter. In the African it is sometimes so ill-marked that only a medical practitioner of some experience can recognise it at first sight. It is not very contagious to Europeans, but when caught it is loathsome and troublesome. I have never looked on yaws as a disease that could be cured under from three to six months.

I was once invited by my superiors to take up the extermination of this disease in New Guinea, but being then the only medical man in a colony larger than Great Britain, and having absolutely no means of dealing with an endemic contagious malady, I was obliged to say, in somewhat different words, that I might as well try to arrest an earthquake. In Polynesia, if not in New Guinea, there is not only the endemic nature of the disease to contend against but also the very strong native prejudice of "the conscientious objector" in its favour—a prejudice difficult to deal with, though the disease is not made an object of worship there as is the case with small-pox in West Africa.

Though yaws was indigenous to Fiji, tinea imbricata was not known in that colony till introduced by plantation labourers. Many Line Islanders were brought to Fiji as plantation hands, and among them tinea imbricata is endemic, whilst yaws was unknown to them. The Fijian gave yaws to the Line Islander, and the latter gave his loathsome tinea to the Fijian. The Solomon Island recruit also brought tinea imbricata to Fiji with him, and he in turn left the colony, in a great many cases, with venereal disease in some form or other.

VENEREAL DISEASE.

Venereal disease was not known to the Pacific Islanders, or to the Papuans, till it was taken to them by Europeans. Certain social habits of these peoples facilitated the rapid spread of these maladies, and they flourished with the usual luxuriance of a crop on new soil. It was very extraordinary how the Pacific Islander was affected by soft chancre. Very frequently the sore developed into a great spongy mass that bled profusely if touched. In not a few cases the ulceration caused death by penetrating the abdominal wall. These specific sores were also remarkably contagious. On the other hand, syphilis, being more slow in its processes, did not immediately effect the ravages that might have been expected. Gonorrhœa was all but incurable in native women. At first many of them were brought to Fiji as plantation hands. It was extremely rare that one returned home with a child. The trader had some small share in spreading these diseases, but it was insignificant compared to what was done by the labour traffic. Yet in the face of all this some good Churchmen, and at least one bishop, who visited the recruiting islands expressed themselves as favourable to the labour traffic. These good men did not see behind the calico—"Come storpiato è Maometto."

MEASLES.

Fiji was also the centre for the distribution of measles in 1874, a disease introduced there by one of Her Majesty's ships of war. The epidemic that followed destroyed between a third and a fourth of the whole population, affording a striking example of the exuberance of a new disease among a new people. In this respect, however, measles was not more surprising in Fiji than was the usually insignificant disease of itch in British New Guinea. This latter malady, which was introduced in some old clothes, sped like a tidal wave along the coast, and in a few weeks thousands of people were covered from head to foot by the most exaggerated form of the disease. It probably spread much faster from the fact that one shirt might be worn by several people in one day. When matters were beginning to assume a somewhat serious aspect, the disease, having spent itself,

began to abate, and soon declined to the level it will probably always keep in a community where clothes are common property and itch attacks the human face.

DYSENTERY.

There are few scourges that require the same thorough and exhaustive study which dysentery calls for. This disease, in its epidemic and contagious forms, was unknown in British New Guinea half a score of years ago. In recent years it has caused many deaths there. It began in Fiji with the advent of a European population and led to considerable mortality among them, even before annexation. But during the prevalence of measles, and frequently afterwards, it assumed an epidemic form. From the first introduction of the disease there it was regarded as contagious. When settlement became better established and the houses of Europeans were provided with rain-water stored in metal tanks dysentery among them became much rarer, but on large plantations and in native villages it took on at times a very malignant form. Instances occurred in which even 50 and 75 per cent. of the Polynesian labourers on an estate died from this disease, which was new to them. Excessively high mortality from the same cause occurred also on some of the Queensland plantations among the Polynesians employed there. I was once received at a certain plantation by an interesting-looking boy of about 14 years of age, who was evidently not of the usual class of recruits. On being asked who he was, he said he was So-and-So from New Britain. To the question, "How many are there of you?" he replied, "Plenty all die, only me." I found that there had been 115 of them and that he was the sole survivor. This was the work of dysentery. The treatment in each epidemic was at first like groping in the dark. In a very deadly outbreak that occurred amongst some three score of recruits landed out of a vessel in which they had been battened down for 30 hours during a hurricane, an examination of the contents of the intestines of those who had been dead but an hour or two showed that these consisted of a mass of what were then called vibrios. In consequence of this observation a mixture of corrosive sublimate was given to the two score survivors, all in hospital. The remedy acted like a charm and not another case ended fatally. But this remedy failed utterly in two or three succeeding outbreaks elsewhere in the colony. During one season salicylic acid acted with extraordinary success. Then it in turn ceased to be of any use.

From many observations of this kind it appeared that dysentery is made up of entirely different diseases or of one disease that presents widely diverse stages. It offers a splendid field to the humanitarian and to the enthusiastic scientist who we trust may be sent out from this school. Were I to judge from my own personal experience I should say that dysentery causes more deaths than any other disease in tropical countries. No other malady is so universally distributed and of such constant occurrence.

Laveran says, "Le paludisme est certainement la plus répandue des maladies endémiques," and Dr. Patrick Manson says of malaria, "It is the great disease of the tropics." My experience is different. I have served in two countries where there was no malaria; never in one where people did not die from dysentery. Last year of 39 cases of dysentery treated in Lagos Hospital 10 died, say one in four; of 128 cases of malarial fever, four died, one in 32. Dysentery is the chief agent in the rapid depopulation of the Pacific. It swells the death-rate in West Africa, but not so much amongst Europeans as amongst natives. But there one does not see the wholesale depopulation from this disease that is sometimes so clearly observed on a Pacific island from the return home of a single labourer suffering from contagious dysentery. There can hardly be any doubt as to the contagious nature of some epidemics of dysentery. We regarded the common house fly as an active agent in its spread in plantation hospitals and took precautions accordingly. The communicability of this disease has always to be taken into account in the tropics, more particularly in places like West Africa, where the sewage of a number of houses often flows into the great clay pit from which the houses have been built and out of which the same houses draw their water.

The man who will work out an effective and practical means of dealing with contagious dysentery will be the greatest benefactor of the races that live in the tropics. He may claim to be the saviour of the Pacific Islander, the most loveable man of men now living. It is a study that I most earnestly commend to your attention and on which I trust you will all turn the searchlight of science. Dysentery is a destructive giant, compared to which strong drink is a mere phantom.

MALARIA.

To the tropical European, though perhaps not to the tropical native, the most important study is probably that of malarial fever, the investigation of which has already furnished us with some of the finest examples of human intelligence, perseverance, and observation, and unveiled to us some of the most wonderful of the workings of nature. To myself this chain of marvels, full of poetry and religion, nowhere better seen than in the splendid illustrations of Major Ross, I.M.S., and Dr. Fielding-Ould, always recall the words of the second greatest Teuton of the century:—

> "Wie alles sich zum Ganzen webt,
> Eins in dem andern wirkt und lebt!
> Wie Himmels Kraefte auf und nieder steigen,
> Und sich die goldenen Eimer reichen!
> Mit Segen duftenden Schwingen,
> Vom Himmel durch die Erde dringen,
> Harmonisch all das All durchklingen!"

The prediction that malarial fever would be found to be due to a parasite having its cycle in man and the mosquito, is fit to be compared with Goodrick's theory of the cycle of Algol, with Leverrier's and Adams's assigned position of Neptune, and with Murchison's prediction of gold in Australia. To my own mind it recalls the early teaching of the germ theory of antiseptics by the immortal Lister. It may not improbably lead to an equally great revolution in medicine. The position assigned by foreign writers to our British scientists in this, the greatest of recent discoveries, is, and must remain, most honourable to them and to our nation. The name of Dr. Manson, one of the brilliant lights of this institution, will always be connected with the fertile hypothesis that has led to the astounding revelations of that prince of observers, the great Ross, of Grassi, Celli, Bignami, Bastianelli, Koch, and others.

The whole subject of malarial fever is of more importance to the Italians and to ourselves than to any other nation. The Italians have, they say, 11,000,000 of their people exposed to it, which, according to Celli, furnishes them with 2,000,000 cases a year, with an average mortality of 15,000. It is true that it is almost unknown in Great Britain itself, but Laveran states: "Morehead estimait qu'aux Indes les fièvres palustres comptaient pour 40 sur 100 dans la mortalité générale." This is probably not proved. Dr. Manson at the Royal Colonial Institute showed what a serious matter malaria is on the West Coast of Africa. This is enough to demonstrate of what vast national importance it is to the British Empire.

There seems to be some tendency at the present time to seek the origin of malarial fever in coloured tropical children. Surely it must be acknowledged to be an old domesticated disease in the United Kingdom and on the continent of Europe, for which aboriginal children could not at any time have been held responsible. You all remember how in the beginning of this century the anopheles completely routed one of the most powerful British armies ever sent to the continent of Europe. Then, again, our history supplies few more pathetically ridiculous pictures than the kingly founder of the Royal Society dodging his medical advisers to take his Peruvian bark on the sly. Of course, Dr. Schwalbe would say at once that the king contracted his fever abroad. As the two chief attacks occurred 19 and 20 years after His Majesty "came to his own," the probabilities are strong that he owed them to the genuine domestic English anopheles.

In these modern investigations into malaria the Italians have nobly done their share; so have the Germans, through the illustrious Koch. We owe, further, a very great debt to Laveran. I have often been asked by non-medical friends, who has done this great work? whether it is all British? It appears to me to be more or less like this: Manson was the surveyor, Laveran made the road, Ross built the bridges and laid the rails, and Grassi, Bastianelli, Bignami, and Celli provided the rolling-stock. Grassi says: "Preciso perciò che la scoperta che gli anofeli inoculano la malaria umana è uscita dal mio cervello, seguendo una via da me ideata. Naturalmente anche la mia scoperta, come moltissime altre, non sta isolata, ed io non ho mai esitato a dichiarare che sono parvenuto ad essa giovandomi della ipotesi dei mosquitos svolta tra gli altri da Laveran, Manson, &c." Angelo Celli writes: "Sotto i consigli del Manson, cioè del celebre parasitologo che aveva gia descritta la vita della filaria nel corpo delle zanzare, il

Ross, maggiore medico inglese nelle Indie, fece pungere da zanzare uccelli ..... (e) ricostrusse le fasi del ciclo di vita nella zanzara." He speaks again of "questo che possiamo chiamare ciclo del Ross." M. Emile Bertaux thus expresses himself: "Les deux observations initiales sur lesquelles repose la nouvelle théorie de la malaria n'ont pas été faites en Italie. C'est au docteur Laveran que revient l'honneur incontesté d'avoir observé, dès 1880, le parasite dont la présence dans le sang humain est la cause directe et unique de l'infection palustre. Mais c'est le médecin anglais Ross, qui, le premier, determina rigoureusement l'agent de transmission d'une maladie analogue à la malaria humaine." Koch tells that: "Ueber das eigentliche Wesen der Malaria haben wir erst in der neuesten Zeit Erklaerung erhalten durch Laveran." As long ago as 1892 Laveran used these prophetic words: "J'ai émis l'hypothèse que les moustiques jouaient un rôle dans la propagation du paludisme comme dans celle de la filariose." You know how powerfully Manson championed that doctrine, based as it was on his own original and independent work. A great deal still remains to be done in connexion with this subject, perhaps much more in tracing analogies in other diseases than in connexion with malaria itself. There are now many workers in the field, and doubtless their ranks will be strengthened from this school.

THE DESTRUCTION OF THE MOSQUITO.

To my mind the parasitic cycle in malarial fever is proved by demonstration. Although this is so, the experiments now being carried out by some of our countrymen here and in Italy are by no means superfluous. Those who care to read Dr. Christy's book will find at pages 27, 29, and 69 that similar experiments have already been made by the Italians, by whom they have been fully described. But it is highly desirable that they should be performed in a more sensational form and in British blood, to impress and convince the British public. These experiments are the more to be commended that they can be carried out without any greater risk to the subjects of them than is incurred by any European who lives for a few days on the West Coast of Africa, perhaps beyond reach of medical man, nurse, or any other European. The chief use of these experiments is to demonstrate the truth of the theory advanced. There is, of course, no comparison between the position of men sent into a malarial region provided with every appropriate appliance, and with the sole duty of protecting themselves from mosquitoes, and the case of those who mount guard, who nurse the sick, who tend machinery, at night; or with the case of the man belated in the "bush" or stranded on a mud flat.

Even in its present state of development the new doctrine of malarial fever is such that no conscientious administrator could take the responsibility of ignoring it. On the West African coast it must now be reckoned with at every step. Hospital management must be fundamentally affected by it. Wards will have to be painted of a colour that will facilitate the discovery of mosquitoes: and probably some of them will have to be furnished for fever patients with doors and windows of gauze wire netting. Every bed, without distinction, will have to be provided with a fine muslin mosquito net. All water-tanks must be supplied with wire net coverings to prevent the ingress of mosquitoes. Wells and reservoirs and flower-pots will have to be similarly protected. In hospital discipline it will be considered to be a serious offence to allow a fever patient to be bitten by a mosquito. All mosquito breeding-places near a hospital or other dwelling will have to be made unfit for these insects, as far as this is practicable. Much attention will have to be given to the teaching of the new doctrine. All hospital nurses must obtain a mastery of the subject; and so, of course, must sanitary inspectors, otherwise they will be unfit for their posts. But the general public also must have the leading lines of malaria genesis put before them in a way they can understand. It should form a subject of tuition in all the public schools of a place like Lagos, and prizes should be given to the best scholars in the malaria class. The nervous individual who does not know one genus of mosquito from another will, in future, lead an unenviable life in the tropics. Ladies who understand the mosquito theory will not dine in low evening dresses; nor will gentlemen sup with their ankles under the table and covered only by thin black silk socks.

The steps mentioned above, and many others like them, are all very obvious and seem very simple in theory. I regret that I cannot completely share the rosy optimism of our leaders and teachers in this matter. I do not overlook the fact that malaria has been practically extinguished in this country which is not congenial to it for reasons of meteorology. Malaria in the tropics is much more difficult to deal with than typhoid fever, rabies, or small-pox here, and those are not yet vanquished. It is to be feared that in a country like Lagos when all that can be done shall have been accomplished there the results may be somewhat disappointing. Lagos is on a lagoon that crosses the territory from east to west, at some places four or five miles broad. It is all fresh water except near the town of Lagos where it is brackish. We know from the Italians, and by our own experience on the great western coast of British New Guinea, where there is no fresh water, that the anopheles can breed in brackish water. The lagoon water is full of aquatic plants; it has very little current; it rises and falls probably five or six feet; it cannot be drained; it cannot be enclosed within banks; it cannot be kept at the same level. One thing could be done: Lagos Island could be surrounded by a sea wall that would render the current there generally too fast for the anopheles according to the measurements of Celli. It is believed in Italy that the velocity of water to ensure against the breeding of the anopheles must not be under about 1900 yards an hour. Then Lagos Island contains very likely 200 acres of swamp, with all sorts and sizes of water puddles. These could be filled up. If, however, the statement of Grassi is well founded that "gli anopheles si sviluppano la dove sono ..... paludelli anche microscopici," mosquito-hunting at Lagos will never lead to the extermination of the anopheles there. It may be said that the remedy for all this is to abandon Lagos town and go further inland. Alas, we cannot transport the lagoon, and it is necessary for our commerce. A considerable number of people must remain at Lagos, even if the seat of Government is shifted to some other place. My own opinion is that were the harbour opened, the island surrounded by a sea-wall, and the swamps filled in, Lagos would then be fairly well protected from fever, but not otherwise. In the absence of these costly undertakings we must trust more to the paradox of preserving the anopheles from infection than to anything else. We must give quinine to all and sundry gratuitously and we must see especially that it is given to children. Our fever patients and our convalescent stations must be carefully guarded and kept, when possible, where there are no mosquitoes. Our medical staff is numerically weak: we must train native youths in Lagos itself to the extent of making them able to deal with such things as small-pox, malaria, and dysentery. This has been done elsewhere and therefore should be carried out at Lagos.

If the sanitation of the Lagos railway now under construction is not thoroughly taken in hand on sound principles two results will follow: the railway will increase malaria and increased malaria will augment the cost of working, perhaps make the railway a financial failure. We have many swamps in our large towns and huge clay-holes in all towns and villages to deal with; add to this that our population is half naked. These are among our difficulties. Add to those the immense fecundity of the mosquito. Ficalbi says that one mother mosquito may in the fifth generation be the progenitor of 50 milliards. Howard shows that one rain-barrel may contain 19,110 larvæ and that they may produce at least 12 generations in one summer. This at 70 eggs a mosquito would produce in a summer a number of mosquitoes expressed by 25 figures. In our favour we shall have the support and encouragement of the Colonial Office, a chief medical officer who is himself a successful worker at the malarial theory, and we shall have a number of medical officers trained here. It is also in our favour that we have no rice-fields; that our soil is sandy and dries very quickly, resting on a shingly sub-soil. It will be interesting to watch the result of all this.

A very important point to determine at Lagos is the distance an anopheles will fly to a feeding-ground. Will it cross the lagoon? To Mr. Fagan I am indebted for the recent work on mosquitoes by Howard, an American. From it we gather that mosquitoes may travel 15 miles on a light wind. Celli admits that mosquitoes will extend probably three miles in a horizontal direction. I have had painful verification of that on the New Guinea coast and on Lagos lagoon. Celli seems to cite the case of Sezze to show that the limit of oblique propagation of the mosquito is attained at an altitude of 1000 feet. Koch finds them at 3000 feet in fever communities in Java. We were punctured by

mosquitoes in our camp on Mount Scratchley at 10,000 feet. They were very troublesome at from 5000 to 6000 feet. Mere altitude, therefore, cannot be taken as a safe guide to safety from fever. Before we can shift establishments to the Olokemeji hill, 1000 feet high and fourscore miles from Lagos, we must station residents for a year on the hill in order to ascertain how far it would be fever-free.

My own personal experience of the anopheles has been somewhat interesting. I never saw one in Fiji, where malarial fever is, or was in my day, unknown. Mr. M. I. Finucane tells me that it is still absent there. But amongst the recent consignments of mosquitoes from Fiji Mr. Theobald has found the remains of one anopheles. If it is established that there are anopheles mosquitoes there, the matter becomes one of much scientific interest. Fiji would therefore be in the position of Mauritius and Bourbon before the terrific outburst of fever there in 1867; that is to say, there would be given a country hitherto free from malaria but furnished with Indian coolies with fever blood, from which at any time the propagation of malarial fever may be set agoing in Fiji. So far Mr. Theobald has not had any anopheles from Mauritius. No doubt they will turn up soon. I first saw the anopheles on the afternoon of the first day we visited the west coast of British New Guinea, about nine years ago. I saw something on the forehead of Mr. Cameron, one of my officers, that looked like a small brown peg, and was surprised to find it was a mosquito standing as it were on the end of its proboscis, projecting nearly at a right angle to Mr. Cameron's forehead. It soon filled with blood and began to void it till a drop of blood fell from it to the ground, on which Mr. Cameron thought that he had had enough of it. We all had sufficient experience of it before night, for it is not the case that the anopheles bites only at night or that its puncture is always painless. On the contrary, we found it often as sharp as a prick from a needle. Of course all mosquitoes love dark ways, and will prefer to bite at dusk; but the anopheles will not hesitate to feed, at all events on a dull day or among trees, when it gets the chance. Specimens were then sent to Mr. Savile Kent, who pronounced them a new mosquito.

It seemed strange that we were repeatedly camped for weeks at a time in the mud and swamps of the western or anopheles country and yet left without any cases of fever. The reason is that for some 150 miles of coast there were no human inhabitants. We had been at work a couple of years in the central and eastern districts and had suffered much from fever there before we visited the west, yet the anopheles was new to me when I saw it there. Koch has, however, shown that the fever parasite is very common in Kaiser Wilhelmsland, from which it may be inferred that I overlooked the anopheles in Eastern New Guinea. Those who suffered most from fever in British New Guinea were the crew of the steam yacht *Merrie England*, who were far more frequently ill than those people who travelled daily in swamp and forest, no doubt because anopheles had become domesticated in the men's quarters on board.

Now we require to know how and why mental excitement, any considerable change of temperature upwards or downwards, whether caused by the sun, cold draughts, rain, or other agency, should bring on an access of fever long after possible infection and in spite of long-continued and large doses of quinine. In my own person an access of fever seems to be sometimes caused by exposure to bright sunlight, without reference to temperature. In British New Guinea we never doubted that the horse and the dog suffered from malaria, but this part of the problem seems to be solved by the experiments of Koch, which show that even the fever parasites of man and of the anthropoid apes are different and not transferable from one to the other.

TEXAS FEVER.

Although the specific nature of the human parasite seems thus to be proved it still leaves open for investigation on the West Coast of Africa a cognate question of great social and economic importance, to which I venture to invite your special attention—namely, that of the disease which makes it so difficult to keep a horse alive in the forest country near the coast. I do not scruple to suggest that you should investigate this equine malady or maladies, for two reasons. In the first place, it is of very great importance; and in the second place, if medical men do not examine it it is not probable that any other competent person will do so. I for one shall be surprised if it is not found that the disease is a parasitic one, though poison has been often suspected. Could I find the money I should be prepared to advise the Secretary of State for the Colonies to offer a handsome prize to whomsoever should discover the means of rendering horses immune to this fatal disease. My fellow administrators are enterprising men and something may yet be done in this direction by combination.

Koch[1] is convinced that a practical inoculation against Texas fever can be arrived at. This and his observations on the Surrakrankheit,[2] coupled with the observations of Smith and Kilborne, are sufficient to justify any such expenditure as that proposed, showing as they do that certain breeds of animals are already immune to the tsetse malady and to Texas fever.

ELEPHANTIASIS.

It has been announced lately that the mosquito has been found to be concerned with that strange disease, elephantiasis. This is a malady that I have seen in man on perhaps every part of the body, from the crown of the head to the sole of the foot; but I have never witnessed it in any other animal. In practice and in origin there does not, according to my experience, seem to be any connexion between elephantiasis and malarial fever. In Fiji, where there was no malarial fever, elephantiasis was very common, in certain small islands phenomenally so. The largest scrotal tumour removed there weighed 122 lb. There were several over 80 lb. in weight. In British New Guinea, where malarial fever was very common, elephantiasis was rare. The same is true of Lagos. It would therefore seem that these diseases are in those places more or less in inverse relation to each other. I have not heard of any case in Lagos or in British New Guinea where a European contracted elephantiasis. Two European officers at least became affected by it on the island of Rotumah. Though, therefore, it is a matter of minor importance compared to dysentery or malarial fever, you will still find elephantiasis to be a very interesting subject for investigation.

PHTHISIS.

It does not appear that phthisis was a disease known to the Papuan. The natives of New Guinea are, however, very subject to a form of pleuro-pneumonia common in epidemic form at the beginning of the cold season, apparently contagious and most likely parasitic, to which many succumb. Phthisis was not originally a Fijian disease. Its primal distribution you will find to be a question to the solution of which you can still contribute something.

DIPHTHERIA.

Neither in Fiji nor in British New Guinea was there any such disease as croup or diphtheria; they had not reached the latter colony when I left it in 1898. The first case of diphtheria that occurred in Fiji was about 20 years ago in a little girl seven or eight years of age. This little patient brought the disease from Sydney, and both the child and her mother died from it. A few weeks later a case appeared among the prisoners in gaol in the same town. Sporadic cases occurred later, and probably the disease has now become domesticated in that country, but it is, I believe, still rarely met with there. It does not appear to occur in the Lagos territory in West Africa, and Koch notices its absence in German East Africa.

CANCER.

In some of these new countries there are interesting points to note with regard to cancer. I do not remember to have ever operated on a Polynesian or a Melanesian for cancer, though I had to do so several times on Europeans in Fiji. For nine and a half years I never saw a case of cancer in British New Guinea, but at the end of that time there occurred an example of encephaloid cancer of the tibia in the person of a Papuan who had for seven or eight years lived practically a European life, eating tinned Australian meat daily. It seemed hardly possible that he could have become infected from any previous case. Lupus exedens is very common in New Guinea, but it is always clearly distinct from cancer. The latter disease is, of course, very prevalent in Australia. It may be remarked in this connexion that the Polynesian and the Papuan are practically vegetable feeders. Dr. O. Johnson of Lagos, now in this city, tells me that in Lagos during a practice of 14 years' duration he has five times seen cancer in native patients and that in each

[1] Aerztliche Beobachtungen in den Tropen.
[2] Reise-Berichte, 1898.

case the sufferer had lived as Europeans live. In West Africa there are, however, very marked cases of destructive lupus.

TETANUS.

An equally remarkable experience was met with as regards tetanus. In the disturbances that took place in Fiji in 1876 and 1877, when the mountain chiefs refused to recognise the authority of the Queen and Lord Stanmore had to reduce them to obedience by force of arms and without any army, we treated about 150 wounded men suffering from all kinds of injury. Although the nursing and dressing must have been very imperfect, and operations were performed under difficulty, there was not a single case of tetanus. On the other hand, an officer who had received very serious injuries from the explosion of a charge of dynamite in the interior of British New Guinea died from true traumatic tetanus. He was camped at the upper end of the alluvial country on a piece of ground cleared by us close to the foot of the hills, some 60 miles from the sea. Four or five days later, after a journey down the river, during which we camped each night on its alluvial bank, he was got on board the steamer and a few days thereafter showed the unmistakeable symptoms of tetanus. He was taken straight to the Cooktown Hospital and died there from this disease. No case of tetanus in man or animal had ever been heard of before in British New Guinea. It is not clear that the case of Commodore Goodenough, who was reported to have died from tetanus from an arrow wound received at Vanikoro, is parallel to this one. It is quite possible that the detachable bone point used by Papuans and some Micronesians on the tips of their arrows may in his case have been left in the wound and have caused septic poisoning. These bone points, prepared by scraping down a piece of human bone, would contain septic matter, yet I have not known these to produce tetanus in New Guinea. It may here be mentioned that erysipelas was unknown in those countries.

TINEA IMBRICATA.

The steady stealthy progress made by new invading disease was well seen in British New Guinea in the case of tinea imbricata. It was a domesticated disease in the west, on the Fly River for example, where it is known by the same name that is applied to tobacco. It was also domesticated in the east end, where it is called by a word that in a certain district means "to curl" or "fold up." The central district was still free from it as recently as 10 or 12 years ago, but it is slowly and surely gaining on that region, and during the last three or four years cases have been appearing even at Port Moresby. In a few years it will be endemic over the entire coast, a great eastern wave from the Line and Solomon Islands meeting a wave equally great and irresistible coming from the west. There, as in Fiji, the best treatment was found to be fumigation with sulphur, but it is not possible to apply the remedy universally in New Guinea so as to extinguish the disease.

OTHER TROPICAL DISEASES.

I can only mention by name several other tropical diseases which I have met with that are of special interest and that require investigation. There can be no doubt that ankylostomiasis is indigenous in the Pacific. In 1876 it was found in Fijian mountaineers and in recruits from the Solomon Islands. Perhaps some of you may be able some day to explain its wide distribution and its exact significance. Cerebro-spinal meningitis was not a native disease but it appeared amongst Indian coolies in Fiji. How it came there was a mystery. Beri-beri was not, I believe, a Fijian malady, but it has been introduced by plantation labourers from Japan. In New Guinea it is indigenous but not common.

In New Guinea there is a curious multiple tumour often met with as large as a walnut. It occurs most frequently about the elbows or the parts of the body that touch the ground when one is asleep on it. This has not been investigated. It is probably parasitic. In the Pacific there is a strange post-mortem appearance that is extremely common and that I trust some of you may throw light on. In the hilum of the kidney there is very often half a teaspoonful of brown or purulent fluid. It is found in the greater number of bodies even if dead only an hour or two. Its cause or origin, so far as I know, has not been made out.

RABIES AND "DINGOES."

As an example of the kind of medical legislation as to which you will have to give advice I may first cite from my own experience with rabies. As you all know, there is a species of dog, the so-called "dingo," native to Australia and New Guinea. Where that animal came from is not clear. My distinguished friend Professor Giglioli of Florence gives good reasons for regarding the Australian aborigines as degenerated Aryans. If they are so they probably brought their dogs with them, and this at a time when rabies did not exist in Aryan communities. We shall not consider here whether the barking of dogs is a modern accomplishment or whether the dingo gradually forgot the art. The dingo and the dog cross readily and the first cross between them barks. Doubtless, therefore, the dingo would be readily susceptible to rabies. There is a wild dingo on the top of the Owen Stanley range in British New Guinea, and a complete specimen was secured and deposited by me in the Queensland Museum, but the result of its examination is not yet known to me. The domestic dingo is very common in New Guinea as a pet, as a hunter, and as a table delicacy. All the dingoes of a village meet several times a day to howl and they never separate without a fight. They are provided with long, thin, sharp teeth, which they use in season and out of season, but by preference when out of sight. It closely resembles, or is identical with, the Australian dingo. I have never seen a native dingo in the Pacific Islands. The point that most concerns us here is that the Australian and New Guinea dingoes were free from rabies. The Australian colonies have protected themselves from rabies by instituting a term of quarantine on imported dogs. It was seen that rabies introduced into a country like New Guinea with swarms of ill-tempered biting dingoes, among a bare-footed, bare-legged population, and with a wild dingo in the mountains and numberless pigs everywhere, would be a very serious matter not only for that country but also for the whole of Australasia. The matter, therefore, was dealt with on the broadest platform. A representation was made to the great colonies that had charged themselves with part of the burden of maintaining British New Guinea, urging that the Secretary of State for the Colonies should try to induce France, Germany, and Holland to introduce laws similar to those of British New Guinea to prevent the introduction of rabies into their possessions in those seas. The then Prime Minister of Queensland, Sir Samuel Griffith, saw at once the importance of the measure and warmly supported it; it was, I believe, also approved by the Government of New South Wales. The then head of the Government of Victoria thought the proposal more or less ridiculous and was of opinion that France and Germany would give no attention to such a trifle. Lord Knutsford and Lord Salisbury, however, obtained at once the cordial coöperation of the three foreign Governments. There is, therefore, good reason for hoping that now the whole of Australasia is, with reasonable care, secured for all time against the terrible disease of hydrophobia.

THE "JIGGER."

The question of the introduction of the "jigger" is one that has recently occupied the attention of the Indian Government. To such matters even as the control and distribution of this flea you require to devote time and study. Guided by our experience in Lagos we could only report to the Colonial Secretary that the "jigger" does not cause any noticeable inconvenience on official expeditions, and that it appears in private life to claim very little attention. But a medical officer advising his Government in India would require to know a great deal about the insect before he could venture to recommend any legislative steps regarding it or could suggest that no action whatever should be taken.

LEPROSY.

It is probably now generally conceded that the disease of leprosy is communicable and that the isolation of lepers should be carried out in the interests of the community. No aboriginal people whom I have known have ever entertained the slightest doubt as to the contagious nature of the disease. The natives of West Africa isolate the lepers. In the South Seas they kept them apart and often buried them alive when they reached an advanced stage of the disease. More than 20 years ago I read in a German author that leprosy was extinguished in Scotland "durch die Entmannung der Männer." I have not been able to find the authority for that statement, the author of which has been dead for many years. Leprosy was at one time apparently not uncommon in Scotland. In the "L'Histoire Universelle" of M. Rambaud it is stated that Scotland's most celebrated king died from this dread disease. The whole subject of leprosy now requires to be studied exhaustively in the light of the new pathology. No doubt

some of you are aware that the native Fijian treatment was to bake the sufferer from leprosy near a slow fire. It was confidently affirmed that cases were cured in that way. It will be very interesting to see whether a fuller knowledge of the disease will offer any explanation of such a cure.

QUARANTINE.

I would call your attention for a moment to a medico-legal subject of great importance to many colonies and to which I trust some passing attention may be given in the courses of this school. I allude to quarantine against the introduction of infectious or contagious disease. In all international conferences on quarantine matters British delegates take their stand against the imposition of quarantine. Their system is the isolation of affected or suspected individuals, the disinfection of vessels, and sometimes of cargo. This procedure can be carried out successfully only in a country where there are highly developed police, health, and sanitary services. It requires ample hospital accommodation where patients and prospective patients can be isolated, it needs a staff of trained and intelligent officers to exercise surveillance over people who may have been exposed to possible contagion, and it requires the means of dealing with any of these wherever he may be found. Here in the United Kingdom cleansing and disinfecting can be carried out with scientific accuracy and completeness and at small cost. In this country, then, in the face of the drainage, the ventilation, the accessibility to suspected persons, and the means of dealing with these as well as with infected persons, an outer line of defence may not at any time become necessary. But it is widely different in most colonies. Here the outer line of defence, imposing quarantine on infected or suspected vessels or persons, becomes a necessity. You will find that it will tax your powers to the utmost to advise your Governments how best to combine the public safety with the minimum of disturbance to trade, for that in practice is the problem to solve. At Lagos we have tried to combine the two systems by providing the medical department with the powers necessary to protect us from outside by imposing quarantine on arrivals and to exercise surveillance ashore over persons exposed to a possible infection but who cannot, or need not, be detained in quarantine. Ashore, the medical officers may remove from a community, and isolate, an infected individual; or they may put a house, a village, or a district in quarantine. The small numerical strength of the staff available, the inadequacy of accommodation, the evil sanitary condition of all towns and villages over a great and populous area, make it practically impossible that we should depend entirely, or even chiefly, on our inner line of defence against epidemic disease. You are perhaps aware that in Australia a system of federal quarantine has been in force for several years. The geographical position of the Australian continent is very favourable to this line of action, yet recent events have shown that both the outer and inner ring of defence may be insufficient to keep out disease. The whole subject is one that will call for special and serious study at your hands.

WATER AS A CARRIER OF INFECTION.

Let me impress upon you the extreme desirableness of becoming experts in the examination of water. Nothing is of greater importance in the tropics. Although the new doctrine of malarial fever shows that water is only an indirect agent in the production of that disease it still remains an essential factor in its continuation and spread. It retains all its former importance in respect of other diseases. In West Africa the medical officer should be able to say whether a given well is safe or not on account, for example, of guinea-worm. Water is popularly credited with the origin of the "craw-craw" disease in Europeans. It doubtless has much to do with the spread of dysentery, typhoid fever where that exists, cholera, and several other maladies. Altogether it is one of those subjects to which you cannot give too much attention. Personally I have always contended that the quality of the water used by a community may have as much, or nearly as much, influence on them as has the quality of the food which they eat or of the air which they breathe. A medical officer is constantly liable to be asked by his Government to report fully on the water-supply of some place or of some community.

CONCLUDING REMARKS.

I cannot conclude these somewhat dry and disjointed remarks without offering my hearty congratulations to you who are to become students at this school. In my opinion your lot is the most enviable of any body of men in this great country. You have already travelled over the ordinary road of medical education and have become acquainted with the more frequented parts of the limitless field in which you are to labour. You have become ordinary members of the greatest, the most beneficent, and therefore the noblest of all professions. It can be said with greater truth to-day than it could 3000 years ago: "Ἰητρος γὰρ ἀνὴρ πολλῶν ἀντάξιος ἄνδρων. Here you are now to be taken into some of the by-paths of medical study. There you will be brought face to face with some of the most interesting problems of science, questions which are of vast importance to the life and health of the individual and which will exert a reflex action that will be felt in many of the transactions of public, of national, and even of international life. I trust and hope that you will leave this school well fitted by your knowledge of your profession to do your part in the exercise of your calling, and that you will have securely planted in your mind that high sense of duty that is the life and soul of religion, of patriotism, and of every efficient public service, and that enables the medical man to devote by instinct, and unselfishly, all his mind and all his strength to the prevention and cure of every disease that affects humanity.

Presidential Address
ON
THE ROMANCE OF SURGERY.

Delivered at the Inaugural Meeting of the 128th Session of the Medical Society of London on Oct. 8th, 1900,

BY JOHN H. MORGAN, M.A. OXON., F.R.C.S. ENG.,

SURGEON TO CHARING CROSS HOSPITAL AND CONSULTING SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

GENTLEMEN,—When it was announced to me that by the kind suffrages of the Fellows of this ancient society I had been elected to the important and honourable position of your president it was not without considerable apprehension that I accepted the position which was offered. For it could not but be felt that to follow in the footsteps of so many distinguished men as have occupied this chair would be a task of no small difficulty. I was, however, reassured by a knowledge of the fact that the loyalty of the Fellows of the Medical Society is so thorough and so well proven, that throughout my year of office I could rest secure of the support and assistance of one and all in my efforts to make this society a focus for earnest work amongst all classes of the profession. I have read with interest and profit the addresses which have been delivered from this chair for the last several years, and so many and so instructive are they that to choose a fresh topic was by no means an easy matter. Following the example of some I might have taken you with me on a holiday excursion. I might have asked you to follow me in journeys over Europe from Lapland to Constantinople or from Warsaw to Cadiz. Or I might have transported you with me to the barrens of Newfoundland or the woods of Nova Scotia, and although I could not have interested you with a disquisition on the flora that we found together I might have treated you to some observations on the fauna of those wild countries, particularly those which lend themselves to pursuit with the rod, the rifle, or the gun and have told you many things which are not to be found in works on medicine or surgery as means of diagnosing the age of a hoof-mark or the direction of your camp. Indeed, it has often occurred to me that there are the materials for a most instructive lecture on the cultivation of the powers of observation which is entailed by many forms of sport and the powers of inductive reasoning thereby engendered. We have only to read Baden Powell's hints on scouting to see how many things we neglect to observe in our daily life, whilst their application has been delightfully pointed out by a member of our own profession in the varied experiences of Sherlock Holmes.

But we have returned from our holidays, refreshed and

invigorated, as I hope, and ready to apply ourselves to fresh work and possibly to seek new enterprises in the pursuit of our art; and I will ask you to pardon me while I take a brief survey of the present condition of surgery as contrasted with that of a quarter of a century ago and then look forward in the direction of still further progress and advance. For it is little more than five-and-twenty years ago that that great change had been accepted which has altered the whole course of surgical history. Lister had been steadily working to find means to combat those many fell obstacles which obstructed the satisfactory work of the surgeon, and his labours were only just becoming universally recognised and acknowledged. I well remember the first important case in which I endeavoured to apply the principles which Lister was then inculcating in Edinburgh. I was then assistant house surgeon and a case of wound of the knee-joint was admitted under the care of Mr. T. P. Pick. The patient was a young man, aged 19 years, and a circular saw had caused a wound four inches long, dividing the patella longitudinally and incising the outer condyle of the femur to the depth of half an inch and to the extent of three-quarters of an inch. The wound was well syringed out with carbolic acid lotion, the joint also, the wound was closed with sutures of carbolised catgut, covered with protective, dressed with gauze and carbolic oil, and put up on a MacIntyre's splint. Suppuration ensued to a modified extent and the patient recovered, after many months, with an ankylosed knee. This occurred in 1873 and was at the time considered a great triumph, since the recognised course of such cases had previously been amputation and probably pyæmia. Our methods of that date seem crude as compared with those of the present day, when the principles thus followed have been perfected to the system now universally recognised and pursued as the routine method of treatment in such cases. I quote, by way of contrast, the case of a man who was under my care early in the present year who had driven a chisel through his knee-joint into the condyle of his femur. He was treated with what we now recognise as ordinary methods and recovered in a few weeks with complete and perfect movement of his joint.

My hospital duties at that period prevented me from going to study at Edinburgh, but as soon as Lister came to London I was a frequent visitor to his wards. It was my fortune to see the first two cases in which he operated for union of a fractured patella, an operation which has always impressed me as demonstrating more strongly than any other the value of antiseptic methods. As a consequence, out of the last 21 cases of fractured patella that have been admitted to my wards 19 have been successively operated on without a single drawback; the remaining two were not suitable for operation on account of other defects. This alone gives a fair contrast between the surgery of to-day and that of 30 years ago, but the contrast is still more strongly marked when we reflect that there is now no single organ or part of the body which the surgeon is afraid to touch. The brain and spinal cord are freely dealt with for the removal of tumours or other sources of interference with their functions. The lungs are opened for the removal of tumours and for the evacuation of pus that lies in their centre and even the pericardium is tapped and drained and the heart itself is sutured.

In the abdomen there is no single viscus or part which is free from the attacks of the surgeon; even the liver, which has long been regarded with awe, has been dealt with for the removal of tumours and has been sutured in order to render it less mobile. As to the amount of intestine which can be removed without any obvious detriment, it would appear to be no longer a matter of inches, but even of feet or possibly yards, whilst from a few recently recorded operations it seems possible that the stomach itself can be altogether dispensed with. I shall not, however, detain you with recalling facts with which you are all familiar, the more so since they have been put before us in a most eloquent and comprehensive form by Mr. Pearce Gould in the address which he delivered before the society in 1895. In that oration he pointed out the changes that had taken place in operative surgery during the past 30 years and the vastly extended area which had been opened to the surgeon, and he paid a justly merited tribute to him to whose patient labours this evolution in surgery is mainly due, Joseph Lister, who has made this society the medium for many of his most important communications, and who only within the past week in the Huxley address, delivered at the school to which I am attached, has shown that age does not wither or time change the depth of his insight into the problems that first occupied his thoughts 30 or 40 years ago, or have they dimmed one whit his deep interest in the further development of the art which he has done so much to glorify. How many of us can remember, like our orator of this year, to have seen maggots in the pus that surrounded a compound fracture? and when we contrast the experience of our student days with our practice in the present, are we not justified in saying that we have witnessed and partaken in the romance of surgery?

But just as romance belongs as much to the past as to the future, so we must not be content to rest upon our oars and fancy that we have reached finality. Indeed, the more one reflects, the more one sees how much there is still left for us to aim at, and it is in the hope that I may indicate some of the paths which we must seek to follow that I base the remainder of the remarks which I have to address to you. If we come to analyse this recent progress of surgery I think that it will be acknowledged that the advance has been much more marked in the direction of technique and that the progress of diagnosis has hardly advanced at an equal pace, and that it is in this direction that we must more specially direct our efforts. So great, indeed, is the confidence in the value of operation that it is no infrequent experience to find cases sent to the hospital with the simple indication "for operation" or "for abdominal section." But as in war the prudence and wisdom of a general are as often shown in declining as in seeking an engagement, so the skill of a surgeon is as frequently exhibited by refusing as by consenting to operate. It may be truly said that by the impunity with which we open the abdomen we have learnt much to account for symptoms which were otherwise inexplicable; but just as Hunter regarded an amputation as a confession of failure, so I look forward to the day when exploratory operation will rarely be advised and when diagnosis will be formed by a careful consideration of symptoms, and reliance placed on that tactile sense which, as Mr. Treves has pointed out, runs risk of being left uncultivated by the modern surgeon. It may, nay, it must, occasionally happen that when all points have been carefully considered there is no other course to follow. It lately occurred to me to be asked by my colleague to see with him a woman who gave no sign of any neurotic tendency. She had for a considerable time been under the care of Dr. J. Mitchell Bruce, a warrant that every point which could lead to a diagnosis had been most carefully considered. She was 32 years of age and of fairly healthy appearance. The hair was prematurely grey. She had enjoyed fairly good health till October, 1898, but from that time till the corresponding month in 1899 she was troubled with persistent vomiting, occasional slight hæmatemesis, and tenderness in the epigastrium. She was given every possible treatment—diet, change of air, &c.—but the vomiting persisted and the woman became more and more thin and emaciated. Naturally, the conclusion was forced upon us that some ulceration existed. I opened the abdomen and searched all the organs. The stomach and pylorus, the posterior surface of the stomach, the kidneys, the liver and gall-bladder, and the cæcum all appeared normal and healthy. There were no adhesions anywhere. The wound was closed and except for two slight attacks of vomiting she never had a bad symptom, and she wrote in July last to say that she was working on a farm, had had no more gastric symptoms, and was getting fat. Here without ocular demonstration it was impossible to assert that no lesion existed, but why the symptoms abated must still remain a mystery.

How largely we have profited in the direction of diagnosis by the experience gained from operative measures cannot be better illustrated than by the case of the gall-bladder. Courvoisier has laid it down that when the gall-bladder is distended and there is coincident jaundice gall-stones are not the cause but more probably cancer of the pancreas, growths in the common bile-duct, or external compression of that duct. The gall-bladder does not become distended, though it may possibly just be felt, or stones in it may be perceived when a calculus is blocking the common duct and giving rise to jaundice, because the previous presence of calculi leads to thickening of the peritoneal covering of the gall-bladder which resists pressure and therefore prevents distension; also because the passage of the calculus along the cystic duct excites inflammation in and around the walls of the duct, which is followed by cicatricial changes that resist pressure and prevent distension. On the other hand, a single calculus impacted in the neck of the gall-bladder or in the cystic duct may be followed by great distension, due to secretion from the

lining membrane, but, under these circumstances, jaundice is absent. Exploratory operations in the subjects of cancer hasten the end and bring reproach upon surgery. If the gall-bladder is incised hæmorrhage may occur and a continuous oozing may follow, and operation for the relief of distension of the gall-bladder by continuous drainage in cases of cancer of the head of the pancreas with jaundice are not advisable. These conclusions have been arrived at through the extensive operative experience of Mr. Mayo Robson. Dr. Osler, again, points out the importance of recurrent rigors in cases where no suppurative foci exist. Thus the practical experience of the surgeon and the careful consideration of facts by the physician combine to formulate a series of data by which the phenomena of disease may be recognised and by which the necessity for exploratory operations is gradually diminishing.

The call for early recognition is nowhere more urgent than in the case of malignant tumours of whatever nature or in whatever tissue, a fact which is forcibly pointed out in the most recent edition of Mr. Butlin's interesting work on the Surgery of Malignant Disease. Are we right in trusting to the knife as our only means of eradicating this fell scourge? May it not be hoped that in some way electricity may destroy the elements of tumour growth or that some form of antitoxin may be found which will counteract the parasite that gives rise to the tumour?

Looking to other fields of surgery we may note that tumours, both innocent and malignant, have been removed from the liver, and Dr. Keen of Philadelphia gives a table of 76 cases in which operation has been performed, whilst the interesting lectures of Mr. Mayo Robson record the vast field of successful surgery which has been afforded by the gall-bladder and its ducts. As to the methods and appliances which have been adopted for removing portions of intestine they can be counted by the hundred and it is in itself a study for the surgeon to keep abreast with them and to estimate their respective values. So, too, it is with all the other parts of the abdomen that increased experience induces novel methods, many of them improvements and advances on what had gone before. The operative surgery of the stomach presents in a remarkable way the great progress which has been made in this direction. In 1880 Mikulicz first sutured the stomach for a perforation. In July, 1900, Dr. Finney of Baltimore collected 268 cases amongst which were 139 recoveries and 129 deaths (a mortality of 48 per cent.). Subphrenic abscess occurred in 20 per cent. and the cause of death in the majority was sepsis. But the point of importance in this particular direction is the difference of mortality depending upon the period at which operation was performed. This has been strikingly demonstrated by Mr. L. A. Bidwell in a paper published in the *American Journal of the Medical Sciences*, in which he shows that the earlier the operation in cases of perforation the greater the chances of success; whilst Tinker of Baltimore estimates the recoveries in cases submitted to early operation at 83·78 per cent. Mr. Mayo Robson collected 188 cases of gastric ulcer, treated surgically, of which 157 recovered and 31 died, thus giving a mortality of 16·4 per cent., and also pleads in favour of more early surgical treatment in cases of an intractable character. Indeed, the stomach would appear to have been of recent years the most prolific area for surgery Not only are wonderful operations performed but marvellous names are invented. Gastrectasia or dilatation of the stomach is treated by gastroplication or gastro-enterostomy. Gastroptosis or moving downwards of the stomach, as evidenced by a change in position of the lesser curvature, has been dealt with by Mr. Treves who in the case of a young woman, aged 22 years, found the omentum adherent to a mass of tuberculous glands in the mesentery, preventing him from raising the stomach. He removed the glands and then could restore the stomach and liver, both of which were markedly displaced, and secured the liver with three stout silk ligatures. An American writer on this subject concludes in these words: "To resume the facts brought out by these operations for gastroptosis it is evident that improvement is not difficult to bring about, whether one secures the liver only, sutures the stomach itself or the mesocolon to the abdominal wall, or shortens the gastro-hepatic omentum, or finally removes a segment of the abdominal wall. The condition is usually a complex one and probably a simple gastrorrhaphy will not be sufficient, but should be assisted by right nephrorrhaphy or hepatorrhaphy." What would our ancestors have said to this? But then, the Americans are a go-ahead people.

The surgery of the brain has advanced greatly since Horsley, in 1886, published his directions for operating, and Ferrier and Hughlings Jackson showed how to locate pressure. By this means abscess, whether following otitis media or due to other causes, can be successfully located and satisfactorily drained; indeed, this is an almost daily performance and Mr. Ballance regards a small opening in the cranium as responsible for some of the failures. As to brain tumours Mr. Butlin in his recent edition says: "It is interesting to observe that surgeons of large experience in brain-surgery of all kinds—for example, von Bergmann—appear to grow less hopeful of the future of the surgery of tumours of the brain"; but Mr. Ballance writes to me that one great success seems to justify perseverance. Tuberculous brain tumour is, in his opinion, a contra-indication to operation, "but encapsuled brain tumours give the best results and they seem most frequent beneath the tentorium. The infiltration varieties cannot be wholly removed, but the operation relieves headache, vomiting, and blindness from optic neuritis." The successes of spinal surgery are more numerous. Caries and tumour here seem to offer a fair return to the surgeon for his operative efforts.

In another direction I think that we may look for a further development of the procedure which has been carried out with such success by Mr. Ballance in the treatment of chronic purulent otorrhœa by the epithelial grafting of the raw bone cavity. I see no reason why a similar procedure should not be followed in cases of extensive necrosis of other bones, or even in some cases of joint disease, as supplementary to the ordinary operation of erasion. In the case of another intractable defect which has hitherto baffled all efforts of surgeons to deal satisfactorily with it some such treatment might be carried out, and for the remedy of ectopia vesicæ the suggestion has recently been made to transplant a portion of the bladder of a sheep to the lower lateral abdominal fasciæ of the patient. After a period of seven or eight days, as proved by experiments on animals, the union of the two tissues is sufficiently strong to allow a plastic operation whereby a skin flap, with the bladder attached, may be swung over upon the extruded bladder and the edges of the attached piece of bladder sutured to the defective parts.

The experience of modern warfare renders it probable that bullets may require to be removed from the substance or even the cavity of the heart. The occasions may be rare, but they must none the less be met by prompt and adequate measures. Not that the surgery of the heart is a new subject, for so long ago as 1648 Rivolan suggested trephining the sternum in cases of pericardial effusion, and a summary of 80 cases of paracentesis for serous and purulent effusion has been published by Dr. Samuel West, and Jamain collected 121 cases of wound of the heart in which there were 16 recoveries. Stabbing wounds are less dangerous than bullet or cutting wounds. John Bell is said by Foy of Dublin to have been the first to remove a foreign body from the pericardium and to cleanse and to drain it. In 1898 Podrey did a pericardotomy for a bullet wound of the heart, the pericardium was evacuated, washed out with boric acid lotion, and a fibrino-purulent deposit was stripped from the heart. A wound one centimetre long was found in the right ventricle. A needle was introduced to feel for the ball and passed right through the heart, which was palpated and the ball felt for but not found. The wound of the heart was not sutured. The patient recovered, and several cases are on record in which wounds have been successfully sutured, one notably by Pagenstecher of a wound of the left ventricle three and a half centimetres long which was treated by four sutures and the patient recovered.

The best means of treatment of chronic enlargement of the prostate, whether by suprapubic, perineal, or urethral prostatectomy, or by orchidectomy, or by vasotomy, or vasectomy, is a subject that I should much like to hear discussed at this society.

The further development and application of the x rays to surgery and medicine is a study which I should like to see appropriated by members of the profession. I believe that it is still in its infancy and that there is a great future before it. But in order that we may obtain the full advantages of its resources it appears to me that the study must be pursued by men having a thorough medical training and must not be allowed by them to fall into the hands of mechanicians lest its progress as a scientific aid to diagnosis be checked. I heartily commend it as a new form of specialty to those who have time and opportunity to pursue this entrancing study.

It will be objected that no man can be expected to have the whole gamut of surgery in his mind, or rather at his fingers' ends, and that thus the tendency to specialism, which is daily becoming more and more marked, must continue to increase till—like the ancient Egyptians, as Sir William Mac Cormac reminds us—there are as many branches of medicine as there are organs of the human body. Whether this is to be brought about, as Mr. Butlin has suggested in his Cavendish Lecture, by a community of workers, "a direct and organised scheme for research and the application of pathology to our art," or by the patient labour of individuals remains a question for the future.

If there ever was a subject on which surgeons once deluded themselves into the happy fancy that they had reached a climax of success it was the treatment of simple fractures. But the spell is broken, the veil of self-satisfaction is lifted, and we are told that our lines are false, our measurements are incorrect, and that our methods tend only to incorrect axes and, consequently, to the starting of joint lesions and the confirmation of defects, for which our treatment is alone responsible. Such allegations are somewhat startling, and one wonders if the bones of Hamilton, of Pott, and of Astley Cooper lie quiet in their graves, or if their ghosts are wandering uneasily in Cavendish-square. But in face of this accusation it behoves us to look into the matter and to consider how far and in what cases should the fragments of a fractured bone be brought into apposition by wire and screws; and whether the disturbance of the tissues, which is involved in their application may not often cause more harm than if the fracture were treated by more ancient methods?

In the foregoing remarks I hope that I shall be pardoned for confining myself to that branch of work to which my past years have been devoted. But I am well aware that, although not so strikingly evident, the advance of medicine has been steady and constant. It is in the nature of things that disease once asserted may be beyond reach of cure. But the art of the physician in the prevention of disease, in its early detection, and in guiding it to a successful issue has progressed with strides almost equal to those of which the surgeon so justly boasts, and the two branches of our art are every day more closely united by the fact that the physician by his early diagnosis appreciates the moment when he may seek the assistance of a surgical ally, and the two are brought together in the combat against many ills which neither alone might have sufficiently appreciated, and in their union is a strength which every year makes more victorious. May this combination grow ever stronger and may their united efforts ever tend to ease the sufferer and to relieve the afflicted! For such is the end and object of our art.

NOTES ON THIRTY-ONE CASES OF DIPHTHERIA TREATED WITH ANTITOXIN.[1]

BY JOHN MACKENZIE, L.R.C.P., L.R.C.S. EDIN., L.M., L.F.P.S. GLASG.

To describe in detail each of the 31 cases of diphtheria of which I have made notes in this paper would make it too long, hence, for the sake of brevity, I have grouped them according to their clinical features and anatomical relations. They extend over a period of five years and consist of the most serious cases which occurred in my practice. With the exception of three cases of acute laryngitis simulating croup in which serum was used as a test they all presented so typical and characteristic an appearance as to render a clinical diagnosis of diphtheria almost a certainty. There are practitioners who view with considerable misgiving a diagnosis of diphtheria unconfirmed by a bacteriologist. The clinical diagnosis, they aver, "is so liable to err, for a dirty, greyish membrane is produced by other causes than Klebs-Löffler bacillus, by streptococci, by caustics, and it not infrequently follows excision of the tonsils if the throat is not kept very clean. An exudation *per se* proves nothing; the specific organism must be discovered."

It cannot be disputed that many cases of sore-throat with an exudation are now recognised to be benign and non-diphtheritic, just as we know that cases of sore-throat free from exudation contain the Klebs-Löffler bacilli; even then the path of the bacteriologist is not without its difficulties and dangers. Should erroneous conclusions be accepted and acted on, what then? Your precious time is lost and a serious mistake is committed; nor is it altogether becoming of the physician to defer absolutely to the bacteriologist. Does not the bedside present a field of observation and reflection with objects of interest equal to the laboratory? One cannot help thinking after reading their works that our great physicians have as deep—perhaps deeper—an insight into nature's ways as our great bacteriologists. Is not what we term "disease" nature's physiological laws organised on a different plane? However, it is not meant to discuss in this paper the bacteriology of diphtheria.

GROUP I.—THREE CASES OF LARYNGEAL DIPHTHERIA (I.E., THE LESION BEGAN IN THE LARYNX AND ULTIMATELY EXTENDED TO THE PHARYNX).

CASE 1.—A female infant, aged three years, had been ill several days before I saw her on March 30th, 1895. The temperature then was 102° F. and the pulse was 130. The child had a hoarse, rough cough, prolonged inspiration, and much laryngeal stenosis, and her aspect betrayed great anxiety. She was restless and irritable with occasional fits of dyspnœa. An examination of the throat revealed nothing beyond acutely congested pharynx and tonsils, but the symptoms of a typical fatal croup were unmistakeable. Emetics, poulticing, medicated vapours, and swabbing the throat with antiseptics were vigorously prosecuted but with no relief. Antitoxin was then in its infancy and few believed in it. Early on the next morning I telegraphed to Messrs. Burroughs and Wellcome for two doses of 1500 units each of anti-diphtheritic serum which arrived at 6 P.M. the same day. When I went to inject it at 7 P.M. the little sufferer was livid, her voice was reduced to a whisper, and her condition was distressing beyond description. I told the parents that in all likelihood the child would die from asphyxia in the course of the night. That a fatal issue was fast approaching I had no doubt whatever; but the reason for my giving so gloomy a prognosis was that the parents on seeing my syringe and needles demurred to the injection. They were willing for me to give the antitoxin by the mouth but not by injection. However, after much parleying I carried my point and gave an injection of 1500 units of anti-diphtheritic serum between the scapulæ. On the next morning her general condition was distinctly better. The temperature, which was at the moment of injection 104°, was now down to 100°. The cyanosis had disappeared and the dyspnœa was much less. At the middle of the third day of my attendance the patient had a serious attack of dyspnœa followed by collapse which greatly alarmed the parents. It was then proposed to give a second injection but this they refused point-blank on the plea that there was no use in inflicting more punishment on her as she was sure to die. By this time small patches of white or greyish-white membrane were developing on the tonsils and the margin of the soft palate. In an hour or so she rallied and was removed to the Nottingham General Hospital where tracheotomy was performed soon after admission, but, according to my information, no serum was injected. She made an excellent recovery.

CASE 2.—A female infant, aged three years, when first seen by me on June 5th, 1899, had a hoarse, rough, croupy cough, which was said to have been very troublesome for the last three or four days. The temperature was 100° F., the pulse was 130, and the respirations were 30. Laryngeal stenosis and dyspnœa were at times extreme. At 3 P.M. on the same day 1500 units of Messrs. Burroughs and Wellcome's anti-diphtheritic serum, which I had had in my house for over a month, were injected between the scapulæ. On the next morning small white patches were observed on the tonsils and the patient's condition was distinctly worse. The dyspnœa was particularly distressing, the chest heaving and the epigastrium retracted at every inspiration. The little sufferer was continually thrusting her hands down her throat, with gazing eyes now fixed on one and then on another as if imploring for help. The dyspnœa, which had been extreme before, was now no longer paroxysmal but continuous. Such a scene is painful to all, especially to the physician who is called in to render aid to a sufferer of tender years whose helplessness deeply appeals to his feelings. Callous, indeed, must be the nature which could ever forget such a sight, and equally ungrateful must be the man who will ever cease to be thankful that science—*pace*

[1] A paper read before the Nottingham Medico-Chirurgical Society on March 7th, 1900.

the anti-vivisectionist—has placed within his reach so effectual a remedy as antitoxin for relieving such agony. I immediately telegraphed for another dose of serum which arrived on the evening of the second day. The child was then *in extremis*. The injection was this time given in the subcutaneous tissue of the abdominal wall. When the patient was seen three hours afterwards the condition was improved. The cyanosis was gone, the dyspnœa was less, and the cough was much softer. Next morning the child was playing with her toys. The white patches on the tonsils and the fauces made no advance and completely disappeared in 24 hours, as also did the stenosis. This was by far the most hopeless case of diphtheria I ever knew to recover.

CASE 3.—This case occurred on July 17th, 1899. A female child, aged seven years, had been ill for several days previously to being seen. Her cough was then hoarse, rough, and croupy, but the dyspnœa and laryngeal stenosis were not very pronounced. An examination of the throat revealed two or three small white patches on the tonsil which could not possibly be continuous with the laryngeal membrane. At 9 P.M. when the injection was given, similar patches were observed on the opposite tonsil. The temperature was then 105° F. and the pulse was 140. Respiration was irregular and inspiration was prolonged. The urine was highly albuminous. 1500 units of anti-diphtheritic serum were injected into the subcutaneous tissue of the abdominal wall. Next morning the general condition of the patient was much improved. On the 19th, the third day, the progress had continued. The membrane had completely disappeared from the tonsils and respiration was free, indeed almost normal. The child made an excellent recovery.

GROUP II.—SIX CASES OF PHARYNGEAL DIPHTHERIA GRADUALLY EXTENDING TO THE LARYNX.

Case 4 (May 15th, 1895) was that of a female child, aged seven years; Case 5 (August 3rd, 1896) was that of a male child, aged four years; Case 6 (August 8th, 1896) was that of a male child, aged six years; Case 7 (Sept. 27th, 1896) was that of a female child, aged five years; Case 8 (Dec. 11th, 1897) was that of a man, aged 30 years; and Case 9 (July 13th, 1899) was that of a male infant, aged 17 months.

Clinically this group is a good example of the type of diphtheria beginning with a dirty greyish membrane covering the lateral sides of the pharynx, the tonsils, the uvula, the soft palate, and the posterior nares, and later in the attack, if not checked, gradually involving the glottis and larynx. The symptoms are essentially asthenia, moderate temperature (from 99° to 100° F.), quick pulse, much constitutional depression, and albuminous urine. I noticed that if the membrane was yellowish or greyish yellow, indicating age, it disappeared under the influence of antitoxin by sloughing, leaving necrosed tissue under. If, on the other hand, it was recent, and whitish grey in colour, it simply melted away. No separation was seen at the periphery but a gradual thinning in all its parts, and when the exudation had cleared away the mucous membrane, though acutely inflamed, presented no raw granulating surface filling up necrosed hollows. Cases 4, 5, 6, and 7 showed marked improvement next morning after the injection and made good recoveries. Case 8, which was that of a publican, is placed in this group because the condition of his throat was anatomically and clinically identical with that of the others, but more especially as the case so forcibly illustrates the evils of delay. The onset of diphtheria to the professional mind is sufficiently insidious; to the laity it is synonymous with laryngeal stenosis and dyspnœa. Medical aid is never sought till these symptoms alarm the friends, which often means in a case of pharyngeal origin a week or two of illness. The patient died suddenly from syncope two hours after I saw him and four hours before serum could be obtained. In Case 9 the patient had been suffering from measles complicated with broncho-pneumonia for two weeks before any throat mischief set in. The onset of diphtheria was early noticed and serum was used with little or no delay. The membrane which covered the tonsils and pillars of the fauces and to a lesser extent the epiglottis perceptibly diminished, but the little sufferer succumbed to his pneumonic lesion.

GROUP III.—THREE CASES OF LARYNGEAL DIPHTHERIA CONFINED TO THE LARYNX AND GLOTTIS AND DIFFICULT TO DIAGNOSE FROM MEMBRANOUS CROUP AND ACUTE CATARRHAL LARYNGITIS.

Case 10 (May 6th, 1895) was that of a male child, aged two years; Case 11 (Sept. 27th, 1895) was that of a female child, aged six years; and Case 12 (July 11th, 1899) was that of a female infant, aged five months.

This group presented very much the same symptoms as the others—a febrile condition, a temperature ranging from 100° to 102° F., a hoarse, rough, croupy cough, much laryngeal stenosis, dyspnœa, and enlargement of the glands of the neck. In one case (Case 12) the swelling extended to the parotids. 1500 units of antitoxin were given on the evening of the first day. The improvement on the next morning was pronounced in Case 10 and Case 11. The harsh rough cough was moist and soft and the anxious look and laboured respiration gave place to easy breathing and cheerful, happy expression. In Case 12 (the infant) the condition was worse. The stenosis and dyspnœa were very distressing, the glandular enlargement was increased, the tonsils were very much swollen, and there was dysphagia with paralysis of the soft palate. A second injection was given eight hours after the first but there was still no improvement and the patient died 24 hours after the second injection. This was the youngest patient I ever saw suffering from diphtheria, for young infants have a natural immunity against certain infectious diseases—e.g., scarlet fever and diphtheria. I have often observed in the course of my work as public vaccinator that insusceptibility to the action of lymph is much more common amongst young infants from one to two months old than children aged four months and upwards. May not the young infant, even if it be five months old, present analogous insusceptibility to the action of serum? Certainly in this case, though used very early in the complaint, it entirely failed.

GROUP IV.—NINE CASES OF PHARYNGEAL DIPHTHERIA CONFINED TO THE PHARYNX, SOFT PALATE, AND POSTERIOR NARES.

Case 13 (August 19th, 1895) was that of a male child, aged five years; Case 14 (Sept. 26th, 1896) was that of a female child, aged six years; Case 15 (Nov. 9th, 1896) was that of a male child, aged five years; Case 16 (Oct. 29th, 1898) was that of a man, aged 30 years; Case 17 (Jan. 28th, 1899) was that of a male child, aged five years; Case 18 (May 6th, 1899) was that of a male child, aged four years; Case 19 (May 11th, 1899) was that of a girl, aged 15 years; Case 20 (May 16th, 1899) was that of a woman, aged 30 years; and Case 21 (Feb. 24th, 1900) was that of a female child, aged five years.

The nine patients in this group were fully a week ill before I saw them. One in particular, who was excessively ill, was notified as suffering from diphtheria on Oct. 29th and had the first injection of serum on Nov. 5th, seven days after notification. The cases were of a low depressing type with a filthy yellowish membrane covering the sides of the pharynx, the tonsils, the uvula, the fauces, and the posterior nares. The temperature was never above 100° F., the pulse was of low tension (from 110 to 130), the tongue was coated and dry, the appetite was lost, and the patients were pale and exhausted. In some cases the exhaustion was so great that the sticky mucus collecting in their throats had to be removed every hour by swabbing lest it should suffocate them.

1500 units of anti-diphtheritic serum were given on the first day of seeing them, aided by antiseptic washing of their throats and stimulating diet. In every case the first injection produced marked improvement within a few hours. As the cases were of long standing it was considered advisable to repeat the injection next morning. They made excellent recoveries.

GROUP V.—SIX CASES OF POST-SCARLATINAL DIPHTHERIA (CLINICAL DISTINCTIONS FROM ORDINARY DIPHTHERIA).

Case 22 (Nov. 9th, 1898) was that of a female child, aged five years; Case 23 (Nov. 10th, 1898) was that of a male child, aged seven years; Case 24 (Nov. 18th, 1898) was that of a female child, aged seven years; Case 25 (Nov. 22nd, 1898) was that of a male child, aged eight years; Case 26 (Jan. 28th, 1899) was that of a male child, aged three years; and Case 27 (July 15th, 1899) was that of a man, aged 30 years.

In post-scarlatinal cases the exudation generally begins about the middle of the second week of illness and is very extensive, covering the sides and posterior wall of the pharynx, the tonsils, the uvula, the palate, and the nasal passages. The involvement of the nasal passages is more common in post-scarlatinal diphtheria than in ordinary cases. The same remark, I think, also applies to the Eustachian tube

and middle-ear. Again, and for obvious reasons, the secretion of viscid sticky mucus is more abundant. The glandular enlargement which is already present greatly increases and the glands are much more liable to suppurate. The larynx and glottis are not so often involved, but paralysis of the uvula and soft palate is more common.

I have notes of 119 cases of scarlet fever treated in 1899 and I cannot find a single case of suppuration of the glands of the neck, cervical or sub-maxillary, except when associated with a dirty greyish exudation of the throat. The onset of diphtheria in cases of scarlet fever also greatly increases the chances of middle-ear complications. I have found that an early practice of keeping the throat clean with antiseptic swabbing, even from the commencement of the scarlatinal attack, greatly diminishes the risk of diphtheria and otitis media.

Two injections of anti-diphtheritic serum, each of 1500 units, were given at eight hours' interval as the cases were very severe. It was also observed that though the effect of the antitoxin led gradually to improvement, yet the change was by no means so immediate and self-evident as in uncomplicated diphtheria. Case 25 deserves, perhaps, special mention on account of a series of complications—viz., nephritis, double pneumonia (which was believed to be septic in origin), high temperature (from 104° to 105° F.), and albuminuria, with much delirious excitement. Lastly—the only mishap I have had—a large abscess formed at the point of injection. A crisis in the pneumonia occurred a few hours after the second injection. The albumin diminished and the temperature declined to 100° and gradually fell to normal. The tonsils and the submaxillary and cervical glands were very much enlarged but they did not suppurate. The patient made a slow but good recovery.

GROUP VI.—THREE CASES (TWO OF ACUTE CATARRHAL LARYNGITIS AND ONE OF MEMBRANOUS CROUP) IN WHICH SERUM WAS GIVEN FOR DIAGNOSTIC PURPOSES.

Case 28 (Sept. 27th, 1895) was that of a male child, aged two years; Case 29 (March 13th, 1896) was that of a female child, aged six years; and Case 30 (Jan. 24th, 1899) was that of a male child, aged eight years.

In each of these cases there was a previous history of croupous attacks coming on suddenly at night and improving through the day. Their temperature ran from 102° to 103° F. There was a quick, hard pulse, a harsh, rough, croupy cough, almost crowing at times, with dyspnœa, long-drawn inspiration, flushed face, and much irritability and restlessness. The stenosis was considerable and there was continuous paroxysmal dyspnœa. The most careful and repeated examination of the throat and larynx failed to discover anything beyond acute congestion. Nevertheless, the laboured breathing with occasional attacks of suffocation were sufficiently alarming. In Case 29 and Case 30 two injections of serum were given at eight hours' interval but with no improvement. During the day the acute symptoms toned down, but with the return of evening things assumed their former severity. The chief diagnostic points relied on after the first 48 hours were (1) the absence of membrane; (2) the daily remission and evening exacerbation generally observed; and (3) the absence of that marked constitutional depression and early asthenia with very moderate temperature so often present in cases of genuine diphtheria. Case 28 is somewhat interesting inasmuch as the serum was given by the mouth. After unsealing the bottle and filling the syringe the parents refused to have the anti-diphtheritic serum injected, but were, nevertheless, quite willing that the child should take the "stuff" by the mouth. Seeing that the serum could be of no use for another case it was given accordingly in a little water at 8 P.M. At 11 P.M. the same night the father came to my house with a piece of pale gelatinous-looking membrane of from a quarter of an inch to half an inch in size which the child had coughed up whilst vomiting. Notwithstanding the expulsion of this piece of membrane I believe the case to have been membranous croup (non-diphtheritic). My reasons for this opinion are as follows:—1. Although a dose of injected serum does produce marked improvement in the condition of the patient in three or four hours by toning down all acute symptoms the effect on the membrane appears to be limited to arresting its growth and would not be sufficient to detach it from its connexions. 2. It is very questionable whether serum can assert any of its therapeutic action after mixing with the contents of the stomach, though it is true that in this case the child had been given emetics and had vomited several times before the serum was administered, thus leaving the stomach empty and ready to absorb fluids quickly. 3. No permanent improvement followed. There was the usual daily remission, but at night stenosis and dyspnœa returned. 4. There was a previous history of similar attacks. 5. Microscopic examination was negative.

The difficulty of differential diagnosis in many of these cases is admitted. Osler observes: "Membranous laryngitis may at first be quite impossible to differentiate from acute catarrhal laryngitis." Jacobi in Pepper's "System of Medicine" remarks: "It may be quite difficult to diagnose croupous from catarrhal laryngitis, particularly in those cases where the former is not complicated with any visible exudative process on the fauces." Clinically the diagnosis is rendered still more perplexing by the opinion of so great an authority as Fagge, who held that non-contagious membranous croup may spread upwards from the larynx just as diphtheritic exudation spreads downwards from the fauces. Jacobi, in the article already quoted, establishes, if unconsciously, the identity of membranous croup and laryngeal diphtheria when he says: "It is contagious in the same family; from a case of croup either another case of laryngeal croup may originate or another form of diphtheria will develop in another member of the household." That a croupous exudation developing into a membrane does occur in the larynx independently of a diphtheritic membrane we cannot reasonably doubt, for we have such membranes in connexion with dysentery and pneumonia, but that there is such an interchange as quoted above is very questionable. Indeed, Case 30 I believe to have been one of these cases of non-contagious membranous croup described by Fagge.

GROUP VII.—TWO CASES OF DIPHTHERIA OF THE CONJUNCTIVA.

Case 31 (Nov. 5th, 1898) was that of a man, aged 38 years; and Case 32 (Feb. 26th, 1900) was that of a woman, aged 30 years.

In both cases the infection was contracted by diphtheritic patients coughing and spluttering whilst their throats were being swabbed out. The patient in Case 31 felt at the time a small particle of mucus strike the right eyeball. He was the practitioner in attendance and knowing the danger to which he was exposed had his eye immediately washed out with warm water. An hour or so after, on arriving at his surgery, the eye was syringed with a weak solution of perchloride of mercury and again syringed with the same lotion two or three hours afterwards. The infection took place at 11 A.M. and nothing was observed wrong with the eye until 10 P.M. when a small congested spot was seen in the lower conjunctiva. Next morning the conjunctiva was inflamed throughout. A solution of nitrate of silver (two grains to one ounce) was now dropped into the eye every three hours. On the evening of the second day the conjunctiva up to the margin of the cornea presented one pale red jelly-like mass. The patient, whose appetite remained good and whose temperature was still normal, became alarmed about his eye. I went with him to Dr. E. C. Kingdon, the ophthalmic surgeon to the Nottingham and Midland Eye Infirmary, who brushed the conjunctiva with nitrate of silver (15 grains to one ounce). About midnight (36 hours after the accident), when the eye was again examined, a small greyish-white patch was seen on the fold of the lower eyelid, not very firmly attached. It looked like a drop of pus or cell débris. When removed and placed in glycerine on a slide under the microscope rods were observed in it which looked like Klebs-Löffler bacillus. The eye was again washed out with a saturated solution of boric acid and then brushed with nitrate of silver (15 grains to one ounce). The patient, after a restless night, woke up in the morning to find that the membrane had not been eradicated, but, on the other hand, had during the night made rapid progress, covering the lower half of the conjunctiva nearly up to the margin of the cornea. The patient was now isolated and placed under the care of Dr. W. B. Ransom and Dr. Kingdon. He was given three injections of antitoxin (1500 units each) at an interval of eight hours. The position of the membrane was so clearly defined and circumscribed so evenly, lining the margin of the cornea, that the slightest change could be distinctly detected. It advanced so rapidly, in spite of the most vigorous local treatment, that it covered the lower half of the ocular conjunctiva in 16 hours—i.e., from the time of removing the first piece till the first serum injection; but so

potent was the antitoxin in arresting this rapid growth that in four hours the membrane was distinctly seen to be receding and in 48 hours it entirely disappeared. The only after-effect was a small corneal ulcer of the size of a pinhead, which quickly healed. Case 32, the mother of one of the patients already described, whilst swabbing out the child's throat felt mucus to enter both her eyes. As she did not know the nature of the accident no local treatment was adopted. When I saw the patient three hours after both conjunctivæ were deeply congested. 1500 units of anti-diphtheritic serum were given there and then and were repeated in six hours. The acute inflammatory condition disappeared in about 24 hours and no membrane formed.

A person critically inclined may remark that there is very little proof of this last case being genuine diphtheria, inasmuch as any purulent matter entering the eye will inflame the conjunctiva. This is true, but the mucus came from a source the specific nature of which was beyond dispute. I think that it is interesting to note the rapidity with which the eyes in Case 32 inflamed compared with Case 31.

Case 31 is interesting from several points of view. 1. The position of the membrane was so well defined and so easily examined that it afforded an excellent opportunity of determining with considerable accuracy the power of anti-diphtheritic serum to arrest its progress. 2. The case further illustrates in a remarkable manner the resistance and vitality of the Klebs-Löffler bacilli on eyes which were twice syringed with perchloride of mercury (1 in 2000), which were continually being washed out with a fully saturated solution of boric acid, and which were three times brushed with nitrate of silver (15 grains to one ounce). Yet the plucky germ survived. 3. The most active local treatment will only delay the formation of membrane; it also appears to moderate the attack, at least in its first stage. 4. The case clearly opposes the view that the Klebs-Löffler bacillus will only flourish on a morbid surface.

In every case the serum used was from Messrs. Burroughs and Wellcome.

Kirkby-in-Ashfield, Notts.

DACRYOCYSTITIS AGGRAVANS RESEMBLING TUMOUR OF THE FACE.[1]

BY KENNETH SCOTT, M.B., F.R.C.S. EDIN.,
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THIS case, besides being an unusual one, is a good example of the great amount of unnecessary suffering and remarkable tolerance of abnormal conditions which are not infrequently observed, amongst eastern nations more especially. The patient came under my care before I left Cairo last year. She was an undersized but well-preserved woman, 75 years of age, of the peasant class, and living in Upper Egypt. She was admitted to the surgical wards of Kasr-el-Aïni Hospital, presumably suffering from a large tumour which involved a great part of the front of her face on the left side, but was afterwards transferred to the eye-section of the hospital. The case proved to be one of double dacryocystitis which on the left side had attained to such enormous proportions that it could only be fitly described as dacryocystitis aggravans.

There was said to have been occasional but rapidly evanescent swellings close to the inner corner of each eye, and when these subsided some discharge usually escaped from the nostrils. No information could be gained as to the real duration of the condition except that the swelling on the left side had existed longer than had that on the right.

Both the upper and lower left eyelids were so inflamed and œdematous that the palpebral fissure could not be opened, but later the globe of the eye was found to be intact. There was, in addition, a large tumour, vertically oval in shape, which extended from the region of the eye to the angle of the mouth, close to the perpendicular mesial line of the face. It encroached upon the eye so as almost to conceal it, filling up the surface depression over the orbital cavity and extending laterally outwards to be in line with the external canthus. Its lower limit was marked by the fold of skin running between the side of the nostril and the corner of the mouth, and the level of its surface lay at a considerable distance forwards in front of the bridge of the nose. The tumour had a well-defined border and was wholly sessile, its surface was smooth and even, and showed no signs of redness. Although it was extremely tense there was a distinct sense of fluctuation present and apparently some degree of pointing towards its lower and outer aspect. The surrounding tissues were thickened and indurated, but only in the eyelids was there any outward evidence of acute inflammation. There was much local pain but no general disturbance of the system.

On the right side of the face there was a small swelling such as is ordinarily seen in cases of dacryocystitis when there is retention. There was also slight thickening of the bones of the nose. This comparatively minor condition was relieved by cutting the lower canaliculus and pursuing the customary lines of treatment. On the left side, as neither of the lacrymal puncta could be exposed, the tumour was incised on its outer edge, where there was cicatricial evidence of previous openings. A large quantity of ordinary thick pus escaped and the swelling collapsed completely. The tissues were too inflamed to permit of further radical interference at the time, and it was not until 12 days later that I was able to slit the lower canaliculus and explore the remainder of the passage, when I found that the lacrymal duct easily admitted No. 8 of Couper's probes, which is approximately equivalent to a diameter of 3 millimetres. A style was afterwards inserted and retained so as to prevent the possibility of even a temporary blocking. The sac which had formed the large swelling was found to be a multilocular one with branching diverticula. It was well washed out every day with a solution of cyanide of mercury, 1 in 1000, but soon became re-filled with thick mucus, which in turn quickly assumed the form of pus, and although the patient remained in the recumbent posture an additional opening had ultimately to be made at the most dependent point of the sac, close to the nasal fold of the cheek, and was kept open by suitable means. The tonic and antiseptic irrigation of the interior of the sac was continued and in five weeks from the date of admission the patient was able to be discharged cured, instructions being given her to return at regular intervals for observation.

Had the lumen of the canal not been so patent it would have been a suitable case in which to enlarge its diameter by means of drills—a method which I had occasion to describe some time ago.[2] In similarly difficult cases a small improvement on the ordinary form of lacrymal probe has proved of much use. It consists in the simple addition of a narrow flange or collar with a milled edge fixed round the centre of the stem of the probe, thus affording a convenient purchase for the fingers, which are enabled to guide the instrument more deftly and with greater firmness and certainty.

Harley-street, W.

[1] Notes of a case read before the Section of Ophthalmology at the meeting of the British Medical Association at Ipswich on August 2nd, 1900.

[2] Annals of Ophthalmology, U.S.A., 1897.

EIGHTEEN CONSECUTIVE CASES OF ABDOMINAL HYSTERECTOMY; TECHNIQUE AND RESULTS.

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THE cases which I am about to describe illustrate the importance and safety of the operative technique followed by Dr. Doyen and are cases in which I have had the privilege of assisting him during the year 1899. They do not, therefore, represent Dr. Doyen's integral statistics, as he operated upon other cases both at Rheims and at Paris, but they include all those in which I assisted him to operate and whose convalescence I was able to follow. I must here express my indebtedness to Dr. Doyen for his permission to publish the cases and for the entire freedom of access which he has given me to his drawings, photographs, and pathological specimens.

In nine cases the operation was performed for the removal

of a voluminous fibroid, in three cases for fibroid with salpingitis, in two cases for cancer, in one case for fibroid with dermoid cyst, in one for fibroid and ovarian tumour, in one for a dermoid cyst with salpingitis, and in one case for fibrous tumour of the uterus in which ovariotomy had been previously performed for a suppurating ovarian cyst.

Dr. Doyen's technique of abdominal hysterectomy is so simple and so largely responsible for the almost startlingly small mortality (from 2 to 4 per cent.) that it is strange that it has not yet been generally adopted in English practice, with or without its latest modifications as shown at the International Congress of Gynæcology at Amsterdam in August, 1899. The English surgeons and gynæcologists whom I have seen operate or who have discussed the matter do not appear generally to have adopted any one technique—some preferring what is known as the American method, or some personal modification of it, while a few appear still to use the serre-nœud. Physicians and surgeons, however, all the world over are agreed in one thing—viz., the desire to find out what is best for their patients—that is, in this matter the operation that is at once the simplest and that gives the best results. Uterine disease of one form and another is so frequent that if we include affections of the annexa it is undoubtedly the most common condition that forces us to open the abdomen. The general adoption, therefore, of the excellent technique that Dr. Doyen has devised, and which is largely practised on the continent, cannot fail to be of benefit. It has the two great advantages of being certainly the simplest method of removing the uterus, whether in a simple or a complicated case, and therefore of being capable of completion, even by a surgeon unfamiliar with it, in half an hour or less.

Perhaps the chief value of the operation to many minds will lie in the fact that injury to the ureter or bladder is practically impossible (I have not seen either wounded in from 30 to 40 cases), and the peritoneum being completely closed the risk of infection is reduced to a minimum.

CASE 1.—Laparotomy for uterine fibroid with double salpingitis was performed on a patient, aged 49 years, on March 29th, 1899. The fibroid was of about the size of a fœtal head, and the salpingitis on the left side was of considerable volume. The patient, who had come from Alexandria, Egypt, for the operation, remained 26 days in the clinique and made an excellent recovery.

CASE 2.—Abdominal hysterectomy for fibroid was performed on a patient, aged 38 years, in April, 1899. The fibroid was of the size of an adult head. The only complication was due to abundant vascular adhesions of the omentum to the tumour and an uneventful recovery was made.

CASE 3.—Abdominal hysterectomy for fibroid was performed on a patient, aged 35 years, on April 25th, 1899. The cervix was displaced high up by the tumour which occupied chiefly the left cul-de-sac. Its removal was easy though the broad ligaments were short and were both clamped and cut in order to facilitate the elevation of the tumour and uterus and the opening of the posterior vaginal cul-de-sac. The patient remained 22 days in the clinique, leaving well.

CASE 4.—Abdominal hysterectomy for large fibroid was performed on May 9th, 1899. The case was uncomplicated except that the closure of the peritoneum by suture over the vaginal opening caused some difficulty.

CASE 5.—This case was one of simple uncomplicated abdominal hysterectomy for large fibroid and was performed on a patient, aged 47 years, on May 16th, 1899.

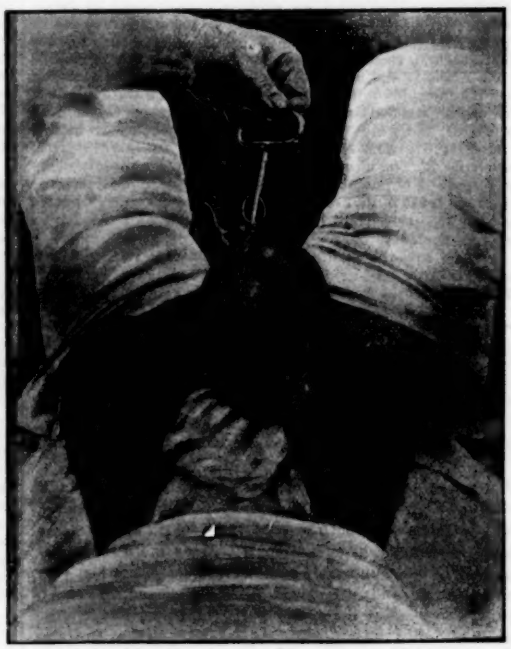
CASE 6.—Abdominal hysterectomy for fibroid filling the posterior cul-de-sac was performed on a patient, aged 33 years, on May 30th, 1899. This case presented difficulties owing to intestinal adhesions which gave trouble and had to be very carefully separated. The peritoneum was closed, but a drain was introduced sub-peritoneally from Douglas's pouch into the vagina. The patient made a good recovery and left the clinique on the thirty-eighth day.

CASE 7.—This case, in which an operation was performed on a patient, aged 44 years, on June 6th, 1899 is quoted because before the close of the operation it was found necessary to remove the uterus though at first only ovariotomy was contemplated. The case was one of a large cyst of the right ovary containing about 10 litres of fluid and extending between the layers of the broad ligament. The adhesions were dense and the shell of the tumour was separated with great difficulty. The left annexa were also removed as well as the uterus, which was large and fibromatous. The patient left well on the twenty-fifth day.

CASE 8.—This was a case of uncomplicated abdominal hysterectomy for fibroid and was performed on a patient, aged 43 years, on June 9th, 1899. The patient left the clinique well in 24 days.

CASE 9.—Abdominal hysterectomy for large fibromatous uterus was performed on a patient, aged 47 years, on June 19th, 1899. There was a cancerous degeneration of the cervix invading the left vaginal cul-de-sac. This degeneration involved the left ureter, which was removed for about three centimetres, the lower end being then sutured into the bladder, and a ureteral catheter was passed into it *viâ* the urethra through the bladder. In spite of the serious nature of this case recovery was practically uninterrupted. The catheters were removed on the eighth day and the patient left the clinique on the twenty-fourth day. When heard from at the end of September, 1900, she was in excellent health.

FIG. 1.



Illustrating the first step, the abdomen opened, and the tumour drawn out above the pubes. Behind are seen the handles of the forceps placed in the vagina. (Plate XIII., No. 1, facing p. 458, Macnaughton Jones, from photograph lent by Doyen.)

CASE 10.—This was a case of abdominal hysterectomy for large fibroid, the patient being aged 48 years. A rare and interesting feature in this case was that anteriorly to, and quite apart from, the uterus was a large dermoid cyst apparently between the layers of the great omentum. Both were enucleated without difficulty. The posterior peritoneal cul-de-sac was drained per vaginam. The patient left the clinique well in 24 days.

CASE 11.—Abdominal hysterectomy for fibroid with double hæmatosalpinx was performed on a patient, aged 42 years, on Sept. 5th, 1899. The operation was uncomplicated and the patient left the clinique well in 25 days.

CASE 12.—Abdominal hysterectomy on account of pain and fibrous tumour to the left of the uterus was performed on a patient, aged 35 years, on Sept. 29th, 1899. In this case there was also old inflammatory peritoneal thickening. The patient left well on the seventeenth day. Laparotomy had

also been performed by Doyen upon this patient seven months before (on Feb. 23rd, 1899) for a suppurating cyst of the ovary. The patient arrived at the clinique in almost a dying condition, as the cyst had ruptured and there were both pelvic and general peritonitis. Both annexa were removed, but the uterus was left to aid the peritoneal suture. A drain was placed in Douglas's pouch and led into the vagina. The patient made a surprisingly good recovery and left the clinique on the nineteenth day.

CASE 13.—This was an abdominal hysterectomy for suppurating dermoid cyst with double salpingitis and was performed in October, 1899, the patient being 50 years of age. The case was rendered difficult on account of the close adhesions that had formed between the peritoneum of the small pelvis and the tumours and the intestine. A good recovery was made and the patient left the clinique on the twenty-sixth day.

CASE 14.—Abdominal hysterectomy for large fibroid was performed in October, 1899, on a patient, aged 38 years. There were a slight amount of albuminuria and persistent diarrhœa, so that for several days after the operation the patient's condition seemed precarious. The patient left the clinique well in six weeks, her departure being delayed by tardy healing of the silk suture.

CASE 15.—This was a case of hysterectomy for voluminous fibroid and was performed on Oct. 19th, 1899, the patient being 55 years of age. Some difficulty was experienced in getting the cervix raised, but otherwise the operation was uncomplicated and the patient left the clinique well on the twenty-second day.

CASE 16.—Hysterectomy for cancer of the uterus was performed on Oct. 11th, 1899, the patient being 55 years of age. She recovered well from the operation and left the clinique in 22 days.

CASE 17.—Abdominal hysterectomy for fibroid and salpingitis was performed on Dec. 5th, 1899. The patient, who was 28 years of age, made an uneventful and good recovery.

CASE 18.—The patient was 47 years of age and abdominal hysterectomy for large fibroid was performed on Dec. 8th, 1899. The incision was of unusual length on account of the size of the tumour and extended from the pubes to about midway between the umbilicus and ensiform process. Both the operation and the recovery were uneventful.

TECHNIQUE OF DR. DOYEN'S TOTAL ABDOMINAL HYSTERECTOMY FOR FIBROID.

It is curious to note how few surgical ailments there are in the treatment of which, no matter how frequently they may occur in practice, surgeons generally are agreed as to the operative procedure to be adopted. In the treatment of hæmorrhoids, for instance, surgeons differ as widely to-day as they did a quarter of a century ago. And yet it seems unlikely that all methods of operating equally approach the ideal of excellence. The fault seems to lie in an excessive conservatism and in the lack of sequence and logical coherence in the literature of the arts of medicine and of surgery—a fault that is continually made evident by the re-discovery and the re-publication of suggestions and of facts that were known to our grandfathers and have been forgotten by many of their sons. Happily, there are exceptions to this rule, and occasionally a surgeon will describe the technique of an operation so simple, so clear, and so perfect that it takes its place at once never to be forgotten. Thus, Macewen's method of osteotomy for genu valgum is probably practised by surgeons in every civilised country in the world and there is none to dispute its place. Who, however, would dare to name the best operation for the radical cure of hernia, for a cerebral or cerebellar abscess, for an intestinal anastomosis, or for a gastro-enterostomy? The names of the claimants are legion.

I submit that Dr. Doyen's technique of the enucleation of uterine fibroids by abdominal hysterectomy is as perfect as operative technique can be. Dr. Doyen has made several minor modifications since he first described it at the International Congress of Gynæcology at Brussels in 1892, but its three chief advantages remain. These are—(1) the retention of sufficient peritoneum around the opened vagina to admit of complete closure of the peritoneal cavity; (2) the avoidance of the use of clamps, ligatures, and forceps prior to the section of the broad ligaments; and (3) the applicability of the operation to the enucleation of all forms of uterine and broad ligament fibroids. I will now give a brief *résumé* of the technique and then describe each step in detail.

The patient is placed in Trendelenburg's position. The posterior vaginal cul-de-sac is opened from the abdomen by scissors cutting upon curved forceps introduced per vaginam by the assistant. The cervix is then easily caught by its posterior lip and freed by cuts of the scissors to right and left until completely circumcised. It is then drawn well up, *separating itself* from the bladder. The right broad ligament is isolated and cut and then the left. The success and safety of the operation lie in its simplicity and rapidity, the complete closure of the peritoneal cavity, and the extra-peritoneal treatment of the pedicles of the removed annexa.

FIG. 2.

Illustrating the removal of the uterus and hæmostasis of its pelvic attachments. (Plate XIII., No. 2.) The cervix is seen caught by the tenaculum after incision behind the posterior lip of the cervix upon the point of the forceps in the vagina. The open blades of the forceps can be seen. The right uterine artery has been caught and the operator is, in the illustration, catching the left uterine artery. (These two illustrations show practically the whole of the ablation of the tumour, as strong traction upon the cervix suffices to separate the uterus, and as a rule no further hæmostatic forceps need be applied.)

First step: abdomen opened, and tumour drawn out above the pubes.—The patient (vide Fig. 1) is placed in Trendelenburg's position and the abdominal wall is incised from the pubes towards the umbilicus and as far above it as is necessary to permit of the extraction of the tumour. The peritoneum is caught on each side of the incision by several catch-forceps and a large compress is thrust in behind the tumour to isolate it and to protect the intestine, &c. The fibroid is then drawn well up and out by means of the large fibroid-screw. Several other compresses are introduced at the sides above the pelvic brim to isolate the field of operation, to prevent the escape of intestine, and to protect the peritoneum from contamination by clots of blood or uterine mucus.

Second step: perforation of Douglas's pouch and seizure of the cervix.—If it has been easy to draw the tumour well out of the abdomen its removal should be rapid and

simple. The vagina has, of course, been cleansed and long curved forceps are pushed by the assistant behind the cervix in the posterior cul-de-sac as high up as possible (*vide* Figs. 2 and 3). (A manœuvre, now neglected but followed by Dr. Doyen in his earlier cases and certainly of use to those unfamiliar with the operation, is to place at this stage a strong silk ligature through the peritoneum at about half an inch below the point made prominent by the forceps in the vagina. The peritoneum is opened at this point and the ligature enables its posterior border to be easily picked up at the close of the operation when the suture of the peritoneum is commenced.) Douglas's pouch is then incised. This is best done with scissors cutting longitudinally upon the point of the long curved forceps which then penetrate the peritoneal cavity and are widely opened by the assistant. The incision is extended a little on either side and the cervix is firmly seized by strong catch forceps, or, better still, by Doyen's special sliding tenaculum, and drawn well up, the assistant steadying the tumour by holding the fibroid-screw firmly embedded in its tissue.

Third step: isolation of the cervix.—It is now easy to feel with the index finger of the left hand the strong lateral attachments of the cervix. Two cuts with the scissors laterally close to the uterine wall free the cervix from its relations to the lower part of each broad ligament, and being thus freed it is at once easily drawn further up and out. The anterior vaginal cul-de-sac now comes into view and the cervix is separated from it by the fingers or by the scissors strong traction being made upon it throughout. The right forefinger separates the bladder with the greatest ease, the traction alone, thanks to the loose cellular tissue separating the bladder and uterus, often sufficing to liberate entirely the cervix and the uterus.

Fourth step: removal of the uterus.—Only the lateral vascular connexions now remain, to be simply and rapidly divided as follows. The left forefinger is passed above the superior border of the right broad ligament through the vesico-uterine peritoneum and gently but rapidly strips off the right broad ligament which the assistant then seizes. The surgeon then cuts between the annexa and the uterus, thus entirely freeing the tumour on its right side. It is then drawn over to the left, the anterior peritoneal covering stripping off as this is done or, if not, separated by a few cuts with the scissors, and finally only adhering by the upper part of the left broad ligament, which is similarly cut, and the tumour and uterus are removed.

Fifth step: arrest of hæmorrhage.—The surgeon then seizes the broad ligament on his side of the patient (the left). The uterine and utero-ovarian vessels, which alone are now bleeding, are caught and ligatured, and if care has been taken to cut close to the uterine tissue only minor branches of these arteries will have been opened. The right and left appendages are now ligatured and removed and the pelvic cavity is sponged out. It only now remains to close the peritoneal cavity.

Sixth step: closure of the pelvic peritoneum.—The right vaginal commissure is picked up with strong dissecting forceps and a curved needle successively threads it, the retro-uterine peritoneum, the peritoneum of the tubo-ovarian pedicle, and finally the peritoneum between that pedicle and the bladder. A medium silk ligature is passed through the eye of the needle and when drawn tight completely closes the peritoneum over the tubo-ovarian stump. The left side is similarly treated and a transverse suture between the two closely unites the retro-vesical peritoneum to that of Douglas's pouch. Any redundancy of peritoneum or tear should be carefully sutured. A dry compress again sponges out the pelvis and the operating table is placed horizontally.

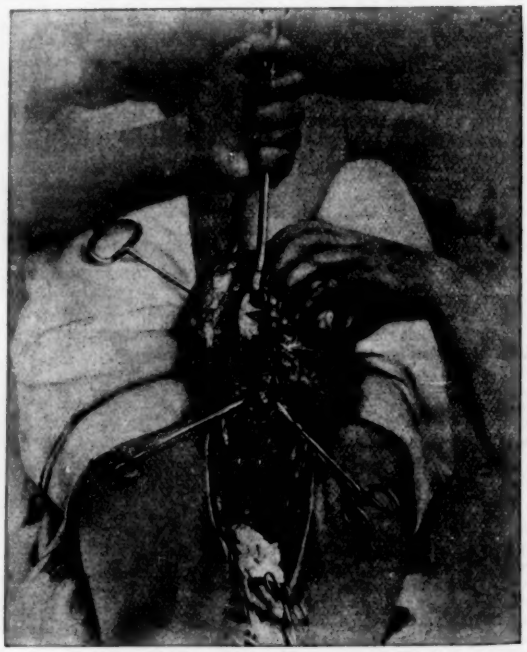
Seventh step: closure of the abdomen.—This is effected by a deep sero-aponeurotic layer with interrupted silk suture or continuous catgut and a superficial skin suture with silkworm or catgut. Thus it will be seen that while the tumour is rapidly removed much time is spent on the careful suture of the peritoneum and of the abdominal wall.

REMARKS ON SPECIAL MANŒUVRES.

1. *The broad ligaments.*—Frequently the broad ligaments are unduly short owing to their attachment high up on the lateral parts of the tumour and it is difficult to get the latter elevated well out of the pelvis. These tight bands, as it were, of the broad ligaments are at once felt by the index finger and may be caught either by the assistant or with long curved elastic forceps and cut through close to the uterus. It is rarely necessary to apply pressure forceps to the uterine surface. If necessary the left broad ligament is similarly treated.

2. *Hæmorrhage from the uterine artery during the isolation of the cervix uteri.*—This usually occurs while the cervix is being drawn up with the tenaculum, but the surgeon is prepared for it, and it is as easy to catch it with pressure forceps as to catch an artery of similar calibre, say, in an amputation of the breast. As the patient is in the Trendelenburg position and is more or less congested it is frequently of use to proceed with the removal of the tumour and then return to the ligature of the two uterine arteries which have served the purpose of a venesection.

FIG. 3.



The result of further traction is seen in this illustration, where the cervix is entirely freed. The opened forceps are still seen in the vagina. (Plate XIV. No 1, facing p. 458, Macnaughton Jones. From photograph lent by Doyen.)

3. *Difficulty in reaching Douglas's pouch on account of adhesions or a posterior sub-peritoneal fibroid blocking the pelvis.*—Dr. Doyen remarked upon this difficulty in 1892 and showed how slight were the changes which it was necessary to introduce into the technique. The tumour is drawn up as high as possible, any adhesions are separated, and if there are multiple posterior fibromata present the peritoneum and uterine tissue are incised and these fibroids easily enucleated with the fingers or the screw. If the posterior cul-de-sac remains inaccessible the forceps in the vagina are simply pushed towards the right broad ligament and the right lateral vaginal cul-de-sac is perforated as close as possible to the insertion into the cervix of the lower edge of the right broad ligament and the operation is proceeded with as in more ordinary conditions.

4. *Isolation of the cervix from the vagina before the abdomen has been opened.*—This is a manœuvre that considerably facilitates the operation, especially to those undertaking it for the first time. It is well, at any rate, during the preparation and toilette of the vulva and vagina to examine carefully the exact position and relations of the cervix. The

higher it is and the more difficult of access by the vagina the easier it will be to reach it from the abdomen. The lower and more normal it is the easier will be the preliminary circular incision of the mucous membrane per vaginam. Undoubtedly the most delicate step in the operation is the section of the lateral attachments of the cervix and of the mucous membrane of the posterior vaginal cul-de-sac, and when this is done as a preliminary step by the vagina the extirpation of the uterus by the abdomen is of the greatest simplicity.

5. *Drainage.*—Though not habitual it is sometimes well to drain Douglas's pouch, either after an exceptionally laborious operation or when the vagino-peritoneal wound has been plugged and not sutured. The best method is by a glass drain introduced from the most dependent part of Douglas's pouch into the vagina and covered externally by a small pouch of thin rubber or skin to collect aseptically any fluid that may thus drain.

6. *After-treatment.*—The patient is well purged on the second day, and sometimes on the first day, after the operation. If the temperature rises ice chopped in small pieces and placed in bladders is laid over the abdomen. I have yet to find the patient who did not find this soothing and comfortable. These are the two details in which the after-treatment differs from that followed in all laparotomies.

Paris.

BILATERAL RESECTION OF THE SUPERIOR CERVICAL GANGLION OF THE SYMPATHETIC FOR GLAUCOMA.

BY H. WORK DODD, F.R.C.S. ENG.,

OPHTHALMIC SURGEON TO, AND CLINICAL LECTURER ON OPHTHALMIC MEDICINE AND SURGERY AT, THE ROYAL FREE HOSPITAL; SURGEON TO THE ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, ETC.

THE operation which I describe in this paper was performed upon a patient as a result of an article by Dr. Jonnesco of Bucharest which appeared in *La Presse Médicale*, June 8th, 1898. In that article Dr. Jonnesco stated that he had performed the operation of resection of the superior cervical sympathetic ganglion for glaucoma seven times and that at the time of writing the cases were old enough to enable one to judge as to the value of the procedure. The results claimed by him consist in an immediate and permanent fall in the ocular tension in all the cases, very energetic contraction of the pupil even in those cases previously iridectomised, disappearance of peri-orbital pains and cephalalgia when these existed, disappearance of the attacks in the irritative glaucoma cases, and very marked and permanent improvement of the sight in the cases where optic atrophy was not complete. This lessening of the ocular tension, due to resection of the superior cervical ganglion, is explained by the ablation of the ocular fibres of the sympathetic which traverse this ganglion before reaching the eye. These fibres are distributed to the iris, the uveal tract, the vessels of the eye, and the peri-bulbar muscular apparatus contained in the capsule of Tenon, &c. Their excitation, permanent or intermittent, peripheral or central, produces a collection of phenomena which is termed "glaucoma." Permanent or intermittent contraction of the arterioles produces an increase of blood-pressure from which arise extravasation and increase of the aqueous humour. Permanent or intermittent dilatation of the pupil draws the iris towards the iridian angle, which condition obstructs the canals or the zone of filtration and prevents or slows down the flow of the aqueous humour. The permanent or intermittent contraction of the peri-bulbar muscular apparatus compresses the emissary veins of the bulb and clogs the venous circulation of the eye whence arises dilatation of the intra-ocular veins This being admitted one easily understands the mechanism by which the resection of the superior cervical ganglion produces decrease of tension and with this cessation of all the troubles of glaucoma. Dr. Jonnesco believes glaucoma to be central and not peripheral in origin. In suppressing the superior cervical ganglion the origin of the trouble is not removed, but the ways of transmission are destroyed. He thinks that this operation should be especially successful in its results in chronic irritative glaucoma and in simple chronic glaucoma. The foregoing is a brief summary of what I take to be Dr. Jonnesco's views on the subject.

It is an undoubted fact that iridectomy has been found to fail in most cases of the chronic forms of glaucoma and that we are now in a state of peculiar uncertainty as to the best treatment of this most troublesome and painful disease. If it be true, as Dr. Jonnesco states, that the removal of the superior cervical ganglion has a beneficial effect upon chronic glaucoma, then we have in this operation a means for relieving a large number of patients whose eyes under the present conditions progress from bad to worse. After taking all the above facts into careful consideration in consultation with my friend and colleague Mr. E. W. Roughton at the Royal Free Hospital, Gray's Inn-road, I felt justified in performing the operation in the following case which seemed to present the characteristics most favourable for trial.

The patient was a woman, aged 62 years, who had been under treatment for chronic glaucoma off and on for about 14 years at the Royal Free Hospital. During that time her vision had been steadily and slowly diminishing and she had never been free from pains in the eyes and "all parts" of the head. During this long time exacerbations occurred at intervals of about six months. While these exacerbations lasted her sufferings from pain in the eyes and head were extreme. She then saw "flashes of light," and though she did not vomit she was the subject of nausea. The symptoms had always been somewhat relieved by the use of eserine. In November, 1891, vision = $\frac{6}{12}$ in both eyes and she wore + 3·50 D. glasses for near work. In October, 1896, the R. E. vision = $\frac{6}{24}$; L. E. vision = $\frac{6}{9}$. In December, 1898, R. E vision = $\frac{6}{12}$; L. E vision = $\frac{6}{60}$. The fields of vision had very slowly contracted, this being most marked on the temporal sides. The tension had never been extreme, varying up to + 1 in either eye during the exacerbations. The patient had been the subject of dysmenorrhœa through most of her adult life. Two years ago she had hæmorrhage from the mouth (gastric ulcer?), but she had had no other serious illness. The patient was a milliner and had had for many years a successful business, but about 10 years ago it began to deteriorate and since then she had been in struggling circumstances. One of her sisters had had the left eye removed for "ulcers" and had had an iridectomy performed on the right eye for chronic glaucoma, for which condition she is still under my treatment. There was said to be gout in the family. The patient was a rather thin, white-haired, somewhat anæmic woman. The pupils were equal, regular, and small, but not contracted. The field of vision for the right eye for white was slightly contracted and more marked on the temporal side; the fields for red and green were still more conspicuously lessened. Vision = $\frac{6}{12}$. In the left eye the field of vision for white was decidedly contracted, especially on the temporal side. In the upper temporal quadrant there was a scotoma and the whole of the centre of the field was blurred and indefinite. Colours were indistinctly seen with this eye. Vision = $\frac{1}{60}$.

Ably assisted by Mr. Roughton I operated in the following manner. An incision about four inches in length was made along the line of the anterior border of the right sterno-mastoid muscle, beginning above at the level of the angle of the lower jaw through the skin and fasciæ. The anterior border of the sterno-mastoid muscle was then exposed and its fascia divided in the whole length of the wound. The border of the muscle thus shown was drawn back. Several lymphatic glands were then removed. The common facial vein was ligatured in two places and divided between near to its entrance to the internal jugular vein. The fascia below the sterno-mastoid muscle was then torn through and the sheath of the great vessels of the neck was opened. The artery and vein were carefully dissected apart and the vagus nerve was then searched for and found. It was then drawn forward by a retractor together with the carotid artery, while the internal jugular vein was held backwards by another retractor. The cord of the cervical sympathetic nerve with the superior cervical ganglion was then found in the fascia at the bottom of the wound, from which it was carefully dissected out The ganglion was seized in a strong pair of forceps and pulled forcibly downwards with a twist so as to tear out the nerve from as high up as possible. The nerve was then cut off at the lower angle of the wound and about one and a half inches of its length were removed, including the ganglion. The operation was then repeated in exactly the same manner on the other side of the neck. The wounds were closed with separate silk stitches and a wet

gauze dressing was then applied. The anæsthetic employed at first was ether, but it was found necessary to change this to chloroform for the second operation on account of the engorgement of the veins of the neck produced by the ether. This operation is practically identical with that described by Dr. Jonnesco under the name of "pre-mastoid."

The patient's pulse was good during the first operation but became rather feeble in the course of the second. It was noticed that it became slower and more feeble when the vagus was forcibly retracted, and this was more marked on the left side. After returning to the ward the patient vomited a good deal and sweated freely, but the pulse was good and there was never any serious collapse. The day after the operation, with the exception of a certain difficulty in swallowing, a somewhat excessive amount of mucus in the pharynx, and an aching pain of a moderate degree in the neck and the sides of the head, the patient was as comfortable as could be expected under the circumstances. The pulse was good and the temperature was normal. The tension of the eyes was a soft normal and the pupils were small. Several days later the patient was practically well. The difficulty in swallowing quickly disappeared. The pupils remained small and she stated that since the operation she had had no pain in her eyes. At least several months must elapse, however, before any decided opinion can be formed as to the success of the operation as regards the relief of the glaucoma.

This operation is undoubtedly a severe one and more so in that it is usually required on both sides of the neck. The proximity of the great vessels and nerves of the neck which have to be themselves handled and pulled apart necessitates the greatest care and a certain amount of general operative experience on the part of the surgeon.

The question naturally arises as to the risk and magnitude of the operation as compared with the severity and gravity of the disease for which it has to be performed. If such an operation does permanently and satisfactorily arrest the glaucoma, preserve the sight, relieve the pains, and restore the patient to even comparative comfort, then I consider it may be undertaken.

I have to thank Dr. F. Eddison and Miss M. M. Sharpe for assistance in respect to the notes of this case.

Harley-street, W.

TWO ILLUSTRATIVE CASES OF SINUS PYÆMIA WITH UNUSUAL RESULTS.

BY JAMES KERR, M.A., M.D. CANTAB.,
HONORARY SURGEON, BRADFORD EYE AND EAR HOSPITAL.

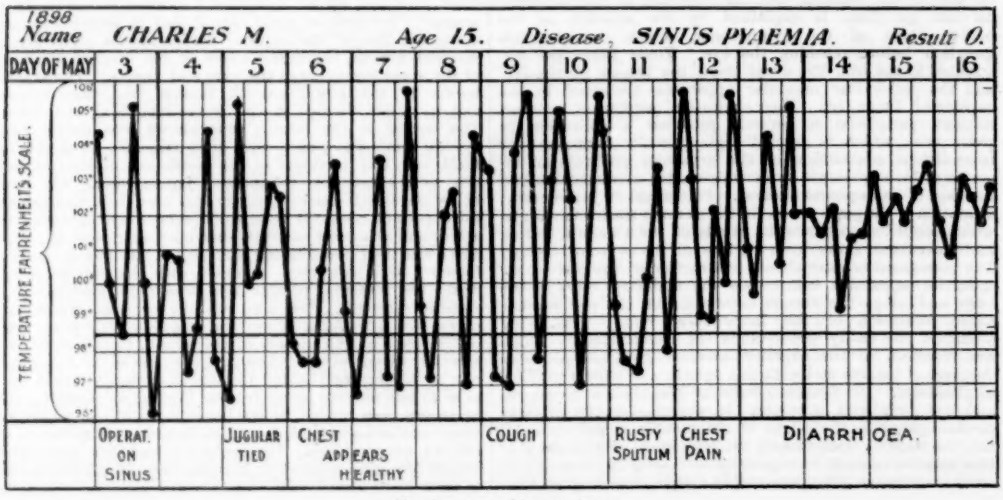
INCREASED attention is now being paid to aural diseases. The recorded mortality from otitis has increased from 5 to 25 per 1,000,000 in 20 years, between 70 and 75 per cent. of these deaths occurring in persons under 15 years of age, so that the suppurative ear disease so frequently neglected after the exanthemata is of serious import to life within a few years. Its import arises from extensions beyond the middle ear leading to abscess or pyæmia. Ten years ago these suppurative complications were looked upon as almost fatal; they are of the gravest import still, and one of the most formidable is sinus pyæmia. Two cases recently seen are worth recording; they are typical in clinical features, but unusual in the result. The treatment followed in both cases was by operative measures and the use of anti-streptococcic serum.

CASE 1.—A youth, aged 15 years, had suffered from chronic otitis for many years. Mastoid operation had been advised a year previously to his being seen by me on April 21st, 1898. There were acute exacerbation, pain, diffused swelling felt rather than seen over the right occipital and the parietal bones, loss of taste on the right side, and slight paresis on the right side of the face. The patient was admitted to hospital on the third day (April 25th). On the next day the right mastoid was explored. The antrum was continuous with a great smooth-walled cavity, which was filled with cholesteatomatous material. This was cleared out and a stinking abscess, which was found under the fascia over the parietal region, was disinfected. Some improvement took place, but there were rigors still, with a pyæmic temperature range of about 6° F. Some days later the sigmoid sinus was explored, when green pus was found. This was cleared out, the sinus was packed with gauze, and finally the jugular vein was tied. Ten cubic centimetres of anti-streptococcic serum were injected, at first once daily, then twice a day, but there was no improvement. The local infection was becoming generalised and there were great wasting and cough, and then chest râles and rusty sputum, pleuritic pains, steady increase of average temperature, general pyæmia, and offensive "typhoid" stools, with diarrhœa during the last ten days. Death took place on May 21st, within a month of the onset of the attack.

Post-mortem examination showed extension of the thrombus back from the obliterated part of the sinus and up the petrosal sinuses, general discolouration of bone, erosion and purulent lymph about the jugular foramen, several perforations punched out of the vein wall, and communication from the floor of the tympanum through the jugular dome, by which route infection seemed to have spread.

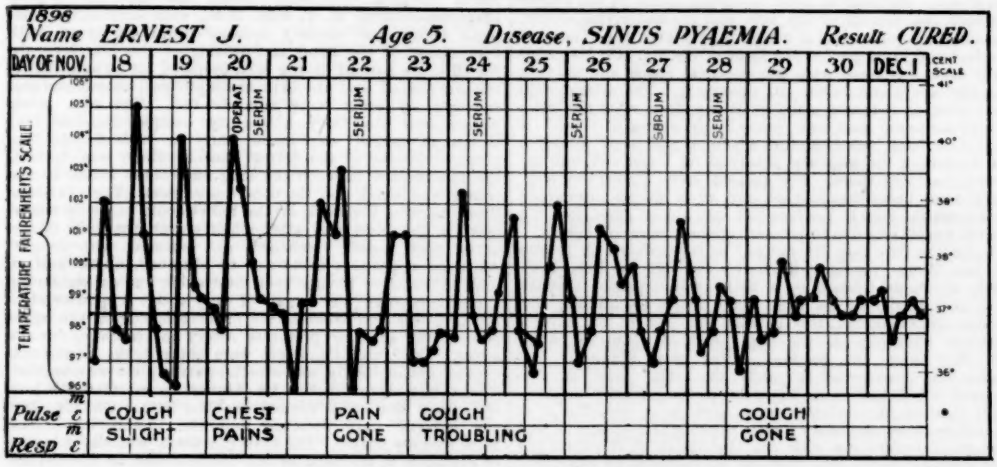
CASE 2.—The patient, a child, aged five years, had had ear trouble for a long time. The history was indefinite. For a fortnight recently there had been an abscess which had been opened by a medical man who sent the patient to the hospital, where he was admitted on Nov. 12th, 1898. The pulse-rate on admission was 104, the respirations were 28, and the temperature was 97·2° F. There was mental clearness, the tongue was coated with a thick, white, dry fur, and there was much discharge from the incision (Wilde's).

CHART 1.



Showing range of temperature.

CHART 2.



Showing range of temperature and dates at which serum was given.

Shotty cervical glands appeared on the side opposite to the wound only. There was no thickening or tenderness over the jugular veins, the optic discs were normal, and there was no headache or pain. During the night the pulse was 140, the respirations were 32, and the temperature was 103·6° F. A diagnosis of probable left lateral sinus thrombosis was made. An operation was performed on Nov. 13th. Bared bone was found for two inches back and above the incision. The meatus had been stripped up; there was no discharging fistula. Having chiselled deeply over the mastoid, pus was reached at a great depth. The lateral sinus was thus fully exposed; it was solid and of a green blue-black appearance (a drawing was made directly after the operation). The left jugular vein was tied and divided. The sinus was now freely exposed till a healthy-looking soft surface was reached. Septic clot was freely scraped out till the bleeding at both ends necessitated plugging. Both ends of the wound ultimately showed signs of being septic. The pyæmic temperatures continued, but there were no rigors. Cough began and there was rough breathing, and on Nov. 20th there were acute chest pains. Therefore further thorough exploration was made; the posterior end of the wound was opened up for an inch and scraped till a healthy area was reached. The posterior wall of the middle ear was deeply chiselled till internal to, and below, the sinus a rudimentary antrum was found and cleaned out. The whole tympanum was curetted and iodoformed. The wound remained aseptic. Serum injections (10 cubic centimetres) were administered about every 30 hours. The patient's appetite improved except during 12 hours after each injection, the chest pains disappeared, and the cough, which at first had been troublesome, passed away within a week. The temperature came slowly down to normal and the patient rapidly regained flesh and was discharged cured on Dec. 10th.

The mechanism of these cases is usually a chronic suppurative otitis with extension to the mastoid antrum and cells, which discharge freely until suddenly, either from increased thickening of the mucous membrane or from slow thickening of the bone, the antral passage becomes blocked and discharge ceases. The first signal of danger—pain—follows, with violent inflammation from the retained pus which often in children breaks its way through the ununited squamoso-mastoid fissure, but in others more often finds its way into cerebral, sigmoid, or cerebellar fossæ. The usual route leading to sigmoid sinus pyæmia is perforation from the antrum into the knee of the fossa, but in Case 1 the perforation appears to have followed a very unusual route in perforating the jugular dome. When the local focus becomes diffused and the chest becomes affected recovery can scarcely be expected, yet this took place in Case 2 and probably was greatly aided by the use of the anti-streptococcic serum. With a rapid pulse and pyæmic temperature early exploration of the sinus should be made, and if it be found to be affected operative measures for the thorough removal of all septic material should be resorted to.

Bradford.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et norborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HERBERT HOSPITAL, WOOLWICH.

TWO CASES OF ARTERIO-VENOUS ANEURYSM CAUSED BY MAUSER BULLETS.

(Under the care of Lieutenant-Colonel J. T. LEWTAS, I.M.S.)

AN abnormal communication between an artery and vein is a fairly rare condition and it is rarer at the present time than formerly, for its most common situation was at the elbow, where venesection was usually performed. The treatment of this condition advocated in the text-books is based on the fact that the aneurysm which exists is traumatic in origin and therefore may be treated in the same manner as other traumatic aneurysms and so may be excised. It is, however, by no means always necessary to excise these aneurysms, as Lieutenant-Colonel Lewtas's interesting cases show, for a simple ligature sufficed. The tendency, however, at the present day is to excise the sac of aneurysms which are not traumatic in origin as well as those which arise from injury, and the arguments advanced in support of this practice are that the harmful pressure exerted by the sac on neighbouring structures is more completely removed than by mere ligature of the artery and that the chance of recurrence of the aneurysm is much lessened. It has also been found in practice that the probability of gangrene of the limb following the operation is lessened.

CASE 1.—A private of the Argyll and Sutherland Highlanders when charging at Paardeberg on Feb. 18th, 1900, was hit by two bullets, one of which passed through the right side of his chest and the other through the centre of his left patella making its exit at the back of the thigh, about the junction of the middle and lower thirds. He soon recovered from both wounds, but a varicose aneurysm developed between the popliteal artery and vein, for which he was invalided home. On arrival at Woolwich there was a pulsating tumour in the left popliteal space of about the size

of a walnut, with the characteristic thrill of an arterio-venous aneurysm. An interval could be distinguished by the fingers between the tumour of the vein and the underlying artery. His chief complaint was of constant pain over the dorsum of the foot and lower part of the front of the leg. On May 23rd an incision was made over the popliteal space and the vein was tied above and below the aneurysm. The artery could not be tied at the same place as it lay deep upon the lower end of the femur and was obscured by oozing of blood. A second incision was therefore made in the usual situation for ligature of the popliteal artery at its upper end, and the artery was tied there. The patient made a good recovery, the tumour quite disappeared, and when he was discharged in August the pain in the foot had also almost gone, showing that it was chiefly due to pressure of the tumour on nerves.

CASE 2.—This case did not end so favourably. A private of the West Yorkshire Regiment was hit on Feb. 11th, 1900, at Monte Christo by a bullet which passed through the inner border of his right thigh above its middle. On arrival at Woolwich the patient was found to have a varicose aneurysm at the upper end of Hunter's canal. On May 31st the femoral artery was ligatured just above its communication with the vein, and as this stopped all pulsation in the vein it was decided to postpone ligature of the latter to a subsequent occasion if it should ever be necessary; such a procedure would, it was thought, interfere less with the circulation of the limb and would therefore be less likely to be followed by gangrene, which is so frequent a result of high ligature of the femoral. But a few days after the operation the foot became cold and mummified and there was no alternative but to amputate the limb through the condyles of the femur. From this the patient made a good recovery, and when discharged there was no sign of an aneurysm of the vein.

Remarks by Lieutenant-Colonel LEWTAS.—The practice of tying both artery and vein above and below these aneurysms and then dissecting out these appears unnecessarily elaborate and severe, and the simpler operation adopted in these two cases was quite satisfactory so far as the aneurysms were concerned.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

TWO CASES OF BULLET WOUNDS.

(Under the care of Deputy Inspector-General H. T. COX, R.N.)

THE former of the following two cases is a good example of the value of suture for a divided nerve even when it is not possible to bring the two ends into exact apposition. In such cases, however, a good result is always doubtful and sometimes transplantation of a portion of nerve is advisable. In the second case an aneurysmal varix interfered seriously with the use of the limb. Any such interference is rather exceptional with this condition, but is more likely to occur in the lower than in the upper limb because the blood-pressure in the veins is greater in the former. For the notes of the cases we are indebted to Surgeon H. W. Gordon Green, R.N.

CASE 1. *Fracture of the humerus with division of the musculo-spiral nerve by a Mauser bullet.*—A private, aged 29 years, Royal Marine Light Infantry, H.M.S. *Powerful*, was wounded in the left arm by a Mauser bullet at Graspan on Nov. 25th, 1899. He was carrying his rifle at the slope when he received the injury. The bullet passed between the ring finger and little finger (as shown by slight skin wounds), struck the butt of his rifle, which was sent flying out of his grasp some distance away, grazed the palm of the hand, and entered the centre of the arm through the anterior and outer aspect of the biceps, fracturing the humerus and dividing the musculo-spiral nerve. He was admitted into the Royal Naval Hospital, Simon's Town, on Nov. 29th, where a radiograph showed extensive comminution of the humerus and lodgment of the bullet beneath the skin at the back of the arm. On Dec. 4th the bullet was removed and was found to be a Mauser (ricochet) bent into a V shape. The bullet was probably bent on striking the brass-bound butt of the rifle, and it now adorns the man's watch-chain. On Jan. 10th, 1900, he was discharged invalided to the s.s. *Simla* for passage to England. The fracture had united, a large amount of callus extending from two inches from the elbow joint to three inches from the upper end of the humerus having been thrown out. There was a fair amount of œdema of the forearm.

On March 5th the patient was admitted into the Royal Naval Hospital, Plymouth, under the care of Deputy Inspector-General H. T. Cox, R.N., with wrist-drop, complete motor and sensory musculo-spiral paralysis, with clamminess of the hand and wasting of the muscles. On the 20th, the patient having been prepared for an anæsthetic, the arm shaved and the skin antisepticised, chloroform and subsequently ether were administered. The arm being placed over the body a slightly oblique incision four inches in length was made half an inch behind the posterior border of the deltoid muscle which was defined, the intersection between the long and outer heads of the triceps was found, and the bone was exposed. The cicatricial tissue marking the track of the bullet could be easily traced down to the bone, and after much search the ends of the nerve were found, freshened, and sutured with catgut. Accurate apposition could not be obtained, about half an inch of the nerve having been destroyed, but on tightening the sutures there was a gap of only about a quarter of an inch. There was troublesome hæmorrhage from the upper end of the superior profunda artery in searching for the nerve. The muscles and skin were sutured, the wound was dressed antiseptically, and a rectangular splint was applied. The temperature reached its highest point (100·8° F.) on the 22nd and was normal on the 24th. On the 28th the sutures were removed and the wound was found to be soundly healed. On April 6th there was slight return of sensation in the back of the forearm and in the thumb. On the 18th galvanism was applied. On May 23rd the patient was discharged to 90 days' furlough. Sensation was completely restored and the hand had lost all coldness and clamminess. The muscles supplied by the musculo spiral nerve responded to the galvanic current and there was considerable increase in power in the extensors of the thumb, but wrist-drop still persisted.

CASE 2. *Aneurysmal varix of the femoral artery and vein caused by a Mauser bullet-wound.*—A private, aged 23 years, Royal Marine Light Infantry, H.M.S. *Doris*, was wounded at Graspan on Nov. 25th, 1899, by Mauser bullets in the right thigh and leg. The wound of entry in the thigh was situated four inches below Poupart's ligament in the course of the femoral artery, the bullet passing directly back through the thigh, the exit wound being five and a half inches below the tip of the great trochanter. The wound of entry in the leg was situated one inch vertically below the tubercle of the tibia, apparently passing obliquely through that bone, the exit wound being at a level five inches lower down slightly to the outer side of the calf. The two bullets struck the man almost simultaneously as he was in the act of getting up from the prone firing position and they brought him to the ground. The distance from the enemy was about 300 yards, the Boers occupying a position on the face of a hill between 200 and 300 feet above the plain. There was considerable hæmorrhage from both wounds, saturating his clothing but not causing him to faint. Within a few minutes an officer of the Royal Army Medical Corps applied to the thigh wound the field dressing which he carried and five minutes later a corporal of the Royal Army Medical Corps bound up the wound in the leg. The patient was then removed by stretcher 500 yards to the rear, and thence by ambulance wagon one and a half miles to the dressing-station, where the wound in the leg was re-dressed, as it was still bleeding. From the dressing-station he was conveyed by ambulance wagon to Graspan Station Field Hospital, reaching there about five hours after being wounded. Here his wounds were dressed without hæmorrhage occurring and he remained until Nov. 27th, when he was sent by ambulance train to the Naval Hospital, Simon's Town, arriving there on Nov. 29th. On Dec. 7th the wounds had healed. A distinct thrill could be felt over the course of the femoral artery close to the upper wound and a loud buzzing bruit could be heard synchronously with the pulse. The condition of arterio-venous aneurysm was treated by rest, pressure, and elevation of the limbs, and on Jan. 10th, 1900, the patient was invalided home per s.s. *Simla*.

On March 5th the patient was admitted into the Royal Naval Hospital, Plymouth, under the care of Deputy Inspector-General H. T. Cox, R.N. The limb was cold and slightly œdematous as compared with the other and it was practically useless as regards progression, the patient being unable to get about without the aid of crutches. The position of the wounds was as previously described. Pulsation in the posterior tibial and dorsalis pedis arteries was feeble. The bruit could be felt and heard about four inches above and

below the scar of the entry wound, and it disappeared completely on compressing the femoral artery. There was no expansile tumour or enlargement of the veins, and the nutrition of the limb was good, with slight impairment of sensation. The patient stated that immediately on receipt of the injury and for four days following he lost all sensation in the limb, but that this had improved considerably since. On April 10th, the patient having been prepared for an anæsthetic, the thigh shaved and the skin antiseptic ised, he was placed under ether. The limb having been rendered bloodless by Esmarch's bandage and a tourniquet applied an incision five inches in length was made in the course of the artery through the cicatrix of the bullet-wound. The track of the bullet led down to the sheath of the vessels, passing between the femoral artery and vein, a small amount of cicatricial tissue indicating the point of injury to the coats of the vessels, binding them and the sheath together, there being direct communication between the vessels at this point. The femoral artery was isolated and ligatured with kangaroo tendon half an inch above and below the wound in the vessels, the fibrous tissue joining the artery and vein being left undisturbed. On releasing the tourniquet no pulsation or thrill could be felt in the vein. The fascia and skin wounds were sutured with catgut and silkworm gut, the wound was dressed antiseptically, and the limb was enveloped in cotton-wool and elevated, warmth being maintained by hot-water bottles. The temperature never rose above 99·6° F. The limb and foot were quite warm and sensitive on the morning after the operation and the wound had healed and pulsation was felt in the posterior tibial on April 19th. He was allowed to get up on May 1st, from which date he made an uninterrupted recovery, and was discharged to duty on June 1st with full use of the limb.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Adenoma of the Body of the Uterus.—Subcutaneous Symphysiotomy.—Exhibition of Specimens.

A MEETING of this society was held on Oct. 4th, Mr. ALBAN DORAN, the President, being in the chair.

Dr. HUBERT ROBERTS read notes of a case of Cancer of the Cervix associated with an Adenomatous Growth of the Fundus. The patient was a multipara, aged 38 years, who had advanced cancer of the cervix, the history dating from about four months before her admission. Except for discharge and hæmorrhage the patient was in good health. Though not a favourable case for vaginal hysterectomy this was performed on March 12th, 1900. The patient recovered well and was still without recurrence. The interest of the case was centred in the specimen, which showed a uterus with advanced cancer of the cervix associated with a curious growth in the fundus uteri, which proved on microscopical examination to be of an adenomatous nature and to have no connexion with the columnar-celled epithelium of the cervix. Mr. J. H. Targett and Dr. Walter Tate carefully examined the microscopical sections, which were prepared by Mr. Corrie Keep. Dr. Cosens prepared the excellent micro-photographs shown. Dr. Hubert Roberts first discussed adenomatous growths occurring in the cervix uteri, the simplest forms being erosion, mucous polypi, and the follicular hypertrophy of pregnancy. There were also some rare cases of true adenomatous tumours, which were sometimes almost indistinguishable from columnar-celled carcinoma. As regards adenoma of the body of the uterus he considered that great confusion existed. "Endometritis," so-called, was a misleading term, for although a true septic endometritis existed, many conditions called "endometritis" associated with overgrowth were really adenoma, some apparently simple, others verging on malignancy if they recurred. Reference was made to adenoma malignum in which glandular elements invaded the muscular tissues of the uterus. Such growths were clinically malignant. Mere curettings in adenoma were untrustworthy and he looked upon recurring adenomatous growths in the body of the uterus in old women with grave suspicions.—The PRESIDENT said that it was clear that two different forms of new growth had developed in the same uterus. The tumour in the body was a pure adenoma according to its microscopical appearances, but to the naked eye it looked malignant. Much remained to be learnt about the earliest stage of cancer of the uterine body.—Dr. A. H. N. LEWERS said that he had met with a case presenting all the characters clinically of cancer of the cervix in which the microscopic examination merely showed large cavities lined by a single layer of columnar epithelium. Supra-vaginal amputation of the cervix was performed. For a time the patient remained well, but about a year after the operation the disease recurred in the scar, and before long there was a large typically malignant ulcer at the top of the vagina. As regards the cause why the uterus was fixed in advanced cancer Dr. Lewers believed the principal cause was extension of the malignant growth to the tissues in the neighbourhood. This seemed proved by cases where, as the impairment of mobility was only slight, an attempt was made to remove the uterus. In several such cases the operation revealed infiltrated tissue beyond the uterus at the situation where the mobility of the uterus appeared to be checked.—Dr. W. S. A. GRIFFITH remarked upon the nature and significance of peri-uterine indurations in cases of presumably operable uterine cancer.—Dr. AMAND ROUTH said he believed that any definite growth developing from the lining membrane of the uterine body after the menopause tended to become malignant and should be treated as such. He instanced a case of recurrent papilloma, innocent microscopically, in which after hysterectomy the growth was seen to have deeply invaded the muscle of the uterus. He did not consider that hysterectomy was justifiable if the broad ligament or utero-sacral folds were indurated, for as all the disease could not be removed the growth was sure to progress.—Dr. G. E. HERMAN could not agree with Dr. Griffith that fixation of the uterus in early cancer was often due to adhesions. He agreed with Professor W. J. Sinclair of Manchester that the usual direction of extension of uterine cancer was into the cellular tissue of the utero-sacral ligaments. The situation of the induration due to spread of cancer in this direction was different from that of induration from pelvic peritonitis. In some doubtful cases in which he had commenced operation, but found that there was too much extension of cancer laterally for the operation to be completed, he had opened Douglas's pouch and found it free from adhesions. He had seen cases of large adenomatous polypoid growths in the uteri recurring again and again after removal; and the microscopical signs of such growths were distinctive; they were not solid, friable tissue like cancer, but pulpy, gelatinous translucent stuff. When such recurrence took place more than once he thought hysterectomy was indicated.—Dr. HERBERT SPENCER thought the report of the case a most valuable one. It clearly showed the association of a simple adenoma of the body with cancer of the cervix. He had no doubt that these adenomata had often been described as secondary deposits of cancer. Ruge and Veit's case ("Krebs der Gebärmutter," Fig. 34) was in his opinion erroneously so described. Cases of simple adenoma of the body had often been removed for cancer. He had met with simple adenoma in old women even recurring after curetting, and yet the patient remaining well and the uterus atrophying after as long as six years from the second curetting. The diagnosis between these cases and cancer was often very difficult.—Dr. HUBERT ROBERTS, in reply, said he thought that in Dr. Lewers's case of suspicious recurrent adenoma of the cervix hysterectomy would have been a better proceeding than supra-vaginal amputation. He criticised Dr. Griffith's remarks and thought it was impossible clinically to decide whether fixation of a malignant uterus was inflammatory or cancerous, and he considered that if the uterus could not be drawn down by traction with a pair of volsella owing to parametric invasion it was unsuitable for operation. He considered that vaginal hysterectomy was the best treatment for recurring adenoma of the body of the uterus in old women.

Dr. G. ERNEST HERMAN read a paper on Subcutaneous Symphysiotomy, pointing out the advantages of the subcutaneous operation, especially as regards its simplicity, quickness, small risk of sepsis, insignificant hæmorrhage, absence of a gaping wound and of a subsequent scar. He urged that if the maximum benefit from symphysiotomy was to be secured it should be done under the most favourable conditions. It ought not to be postponed until the necessity for some kind of operative delivery had been demonstrated by the complete failure of the natural powers. The

accoucheur should ascertain the size of the pelvis before labour and estimate also the size of the child. If he decided upon symphysiotomy it should be done at the most favourable time, and that was immediately after full dilatation of the os uteri. The frequency with which in contracted pelves the membranes ruptured prematurely would make the dilatation of the cervix with Champétier de Ribes's bag usually advantageous. Dr. Herman pointed out that one risk at present inseparable from symphysiotomy was that of injury to the urethra; this was likely to happen in cases in which an attempt was made to deliver by symphysiotomy a child too large to be delivered in that way, and thus the pubic bones were excessively separated. This was to be guarded against by carefully estimating the size of the child beforehand.—Dr. GRIFFITH described an easy method of ascertaining the relative sizes of the fœtal head and the maternal pelvis. The woman was made to sit on the edge of the bed at such an angle that the long axis of the fœtus was vertical. The fœtal head, if smaller than the pelvis, would then spontaneously dip into the cavity owing to the weight of the fœtus being free to act. He discussed the relative indications for induction of premature labour, symphysiotomy, and Cæsarean section in cases of contracted pelvis.—Dr. LEWERS said he had seen some of the operations described in the paper and he regarded subcutaneous symphysiotomy as a great improvement on the method involving a large open wound. It was not applicable, however, in all cases. In his own case of symphysiotomy, for instance, there was a sort of "bite" or dovetail at the middle of the joint and a saw had to be used before the joint-surfaces could be separated. His patient had incontinence of urine for some weeks after the operation but ultimately recovered complete control in this respect and micturition was now quite normal.—Dr. SPENCER thought the subcutaneous method recommended by Dr. Herman had advantages over the open method, but it was to be remembered that many cases of severe hæmorrhage from division of large vessels had been recorded and this had led some authorities to advocate the open method and packing the wound with iodoform gauze. Wounds in the vagina were also very apt to occur and if these communicated with extensive effusions about the pubes the danger of sepsis would scarcely be diminished by the subcutaneous method of dividing the joint.—Dr. HERMAN, in reply, said he was much interested in the method of ascertaining the relative size of the pelvis and child described by Dr. Griffith and hoped to put it in practice. He had included lacerations of the vagina in the injuries of the urethra of which he had spoken, for lacerations of the urethra usually affected the vagina also, and a laceration of the vagina so slight as not to reach the urethra was not important.

The following specimens were shown:—

Dr. H. RUSSELL ANDREWS: Three specimens of Supernumerary Digits with Microscopical Section and Skiagrams.

Mr. J. H. TARGETT: 1. Pregnancy in a Rudimentary Uterine Horn; successful removal of gestation sac five months after full term. 2. Squamous-celled Epithelioma of the Body of the Uterus.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Specimen.—President's Address.

THE first meeting of the nineteenth session was held at the West London Hospital on Oct. 5th. Dr. F. F. SCHACHT occupied the chair. The minutes of the last meeting were read and confirmed and several new members were balloted for.

Dr. J. A. MANSELL MOULLIN exhibited a Fibroid Tumour which, with the pregnant uterus, he had removed by subperitoneal hysterectomy. The patient, who was aged 25 years, had been married for four months. She stated that she was three months pregnant, but she presented a swelling in the abdomen resembling a seven months' pregnancy. She complained of severe pain in the left ilio-hypogastric region which commenced suddenly. There were considerable distension, great tenderness, feeble pulse, and collapse. As the patient grew worse Dr. Mansell Moullin determined to explore the abdomen. He opened it in the middle line by a long incision extending above the umbilicus. The tumour was at once seen, and on its summit was found a soft spongy mass of dark appearance with the peritoneal covering ruptured over it to the extent of about four inches. The operation was completed by removing the whole mass and together with it the uterus containing a four months' fœtus and the placenta. The patient made a very good recovery. The tumour was found to be an immense fibroid growing from the back and the upper edges of the uterus. It was sub-peritoneal and of such a size that it reached above the umbilicus. The uterus could be made out about eight inches lower down by means of the Fallopian tubes. The top of the tumour had sloughed and had broken through the peritoneal coat. Dr. Mansell Moullin thought that this case illustrated well one of the many dangers that women with fibroids were exposed to. He said that he was unable to understand the mental attitude of a certain school which inculcates a "do-nothing policy." Without an operation the patient in this case must have died. She was now spared the tremendous risk which she incurred by becoming pregnant.

Dr. F. F. SCHACHT, the newly elected President, then delivered his address on the Early Treatment of Abdominal Symptoms. After thanking the members for the honour which they had done him by placing him in the chair, he alluded to the fact of his having been the first secretary with Mr. C. R. B. Keetley (the founder of the society) during his presidentship and to his now occupying the chair as a sort of evolutionary development from that position some 18 years ago. Other presidents of this and kindred societies had in their various addresses sketched the advance of every branch of medicine and surgery during the last 50 years. Among those were included the surgical triumphs in the domain of abdominal surgery. During the life-history of the society many fashions in abdominal surgery had arisen and passed away, or sunk to their proper levels, but these triumphs led occasionally to the neglect of the earlier clinical symptoms and their medical prevention. The surgeon's familiarity with the peritoneum had taught them to differentiate and realise many affections, but the clinical symptoms were much the same as of old—vomiting, constipation, diarrhœa, raised temperature, increased pulse-rate, pain, and tenderness. All these were most valuable as symptoms, but yet in many cases they were individually so uncertain in their manifestations that a large proportion of cases must remain of doubtful diagnosis in the early stage. As, however, many serious complications might arise unexpectedly if all possible precautions were not taken, a uniform and systematic method of treatment ought to be adopted from the very beginning in all cases of abdominal disturbance. The wonderful healing power of the peritoneum when left to nature and the process by which this was best attained were then discussed, with a view to showing that rest, mechanical and physiological, should be the object aimed at. Although this appeared to be a truism and was agreed to by all in advanced cases when the damage was done, it was clear from the number of cases of neglect seen daily that in the early stages sufficient care was not given either by the public or the profession to the essentials of rest. Dr. Schacht proceeded to urge that all cases of doubtful abdominal symptoms should be treated in a uniform manner—i.e., by absolute rest in bed, restricted fluid diet, the avoidance of all aperients, and the administration of small doses of opium, preferably hypodermically administered. Illustrative groups of cases—such as gastric ulcers, appendicular inflammations, obstructions, twisted ovarian pedicles, ovarian and tubal inflammations, including ruptured tubal pregnancies—were cited to show what a long list of abdominal troubles were seriously affected by this question of early care, even if they did eventually require the surgeon's interference. The constant reiteration in previous histories of wasted early opportunities had so struck him that he felt that their increased knowledge had, perhaps, developed a new danger and that there was apparently a liability to overlook medical prevention because of the familiarity with surgical cures. The public must ultimately be guided by the profession and must be taught that prompt and strict treatment of a uniform character, if applied in the early stages of any abdominal attack, would shorten many an illness, would lessen its gravity, and would diminish the necessity for surgical interference.

A vote of thanks to the President for his address was proposed by Dr W. TRAVERS and seconded by Mr. F. SWINFORD EDWARDS.—The PRESIDENT then replied and the meeting adjourned.

Reviews and Notices of Books.

A Text-book of Medical Treatment, Diseases, and Symptoms. By NESTOR TIRARD, M.D., F.R.C.P. Lond., Professor of the Principles and Practice of Medicine, King's College, London; Physician to King's College Hospital; and Senior Physician to the Evelina Hospital for Sick Children. London: J. & A. Churchill. 1900. Pp. 692. Price 15*s*.

IN most text-books on practical medicine the etiology, symptoms, and pathology are dealt with in detail, but the subject of treatment is considered only in general terms, thus affording little help in practical work; a desire is therefore felt by the student for a book in which treatment holds the primary place. Several such works have been published and the volume now before us is one of the latest additions to the number. Dr. Tirard has attempted something more, however, than a treatise on treatment only. The various diseases are described *seriatim*, the sequence of the chapters resting chiefly on an anatomical and physiological basis. Under the head of the different maladies the main symptoms are described, stress being laid on those which afford indications for treatment. Similarly, with regard to the causes and complications of certain morbid conditions, attention is directed to those which call for prophylactic or remedial measures. The student, in studying this work, in addition to receiving valuable hints and suggestions with regard to therapeutics, will be able to refresh his memory and to add to his knowledge of the symptoms of diseases.

Throughout all the chapters numerous prescriptions are given culled partly from the author's own experience and partly from the pharmacopœias of the London hospitals.

The various disorders of the circulation are first considered and the treatment suggested is sound and up to date. We would draw the reader's attention to the remarks on the use of digitalis in aortic disease, a subject which is always one of difficulty to the junior practitioner. Very instructive also are the observations on the treatment of chlorosis, a condition which not uncommonly is somewhat rebellious to treatment. We are unable to find any reference to the addition of iodide of potassium to iron salts, a procedure often productive of satisfactory results.

Three chapters are devoted to the therapeutics of disorders of respiration. In describing the treatment of tuberculous laryngitis sufficient stress is not laid on the use of strong solutions of lactic acid, which has frequently met with great success. The sections devoted to "Asthma," "Pneumonia," and "Reflex Cough" will also repay perusal.

The consideration of the diseases of the digestive tract occupies six chapters and a large amount of information is afforded. The chapters are sub-divided into sections for convenience of reference. The one devoted to "Organic Stricture or Chronic Obstruction of the Œsophagus" contains an excellent account of the procedures which may be adopted in that very troublesome and painful affection, and minute instructions are given for the preparation and administration of nutrient enemata. The consideration of acute and chronic gastritis and of gastric ulcer constitutes one of the best sections of the book. All these conditions are frequently met with, yet the student entering on the final stages of his medical curriculum will be frequently puzzled when asked to give minute instructions as to the treatment of a case of chronic gastritis or of a case of dyspepsia. He will suggest "Mist. gent. alk." or "Mist. bismuthi," but when requested to give the ingredients and necessary modifications of these standard mixtures he will most probably be at fault. In reference to the diet requisite for such cases, also, he would find it very difficult to put into writing a detailed diet chart containing the nature and quantity of the daily food. It is in reference to points such as these that a book of the nature of the one now under review is of such value. The use of lavage is recommended in some cases of chronic gastritis, especially when the morbid condition is suspected to be due to alcoholic or some other dietetic excess, and the method of carrying out the procedure is plainly described.

The principles involved in the treatment of diseases of the liver, kidney, and nervous system receive their due amount of attention, as do also the various specific infectious diseases.

Two chapters are devoted to the treatment of tuberculosis. The pulmonary form is naturally taken as the chief one coming under the notice of the practitioner, tuberculosis affecting other viscera being considered only as complications of what is ordinarily called pulmonary phthisis. The "open-air" method is fully described, but Dr. Tirard abstains from enthusiastic praise. He says: "It is not claimed for the open-air treatment that it is an infallible cure or that it will serve to prevent the extension of tubercle to other organs; but it is asserted, and apparently with justice, that in a large percentage of patients improvement will follow the adoption of this system; and there seems to be but little reason why establishments for the open-air treatment of phthisis should not become part of the health arrangements of every town."

The book concludes with three chapters on the treatment of "Constitutional Diseases," including rheumatic fever, gout, rickets, and diabetes.

We have perused Dr. Tirard's book with much pleasure. The manner in which it is written is pleasing and attractive and, as we have already said, the instructions given for the treatment of the various diseases are sound and reliable and the student should have no difficulty in following them.

The Care of the Child in Health. By NATHAN OPPENHEIM. London: Macmillan and Co., Limited. 1900. Pp. 308. Price 5*s*.

THIS is a readable volume in which the author describes in detail the care required in rearing infants and young children, offering much good advice as the result of his experience. The book will prove useful in diffusing knowledge of scientific principles and common sense, which appear to be much needed among mothers. The author warns mothers against feeding children with "pungent and aromatic spices, preserved, pickled, and desiccated articles," further pointing out that "salads, pickles, beer, and wines, &c.," are unfitted for a child aged three years. Various ideas are expressed as to a woman's duties and as to the ideals and the aspirations of womanhood, which in some cases lead to the desire for public and laborious positions rather than for a domestic and social sphere of usefulness. Such a change may be gradually accomplished by women for themselves but should not interfere with the true well-being of women and the development of healthy well-bred children. The chapters on health in pregnancy and in confinement, as well as that on the infant's outfit and nursery, are useful and give good guidance. Some of the details as to dress are original and full of common sense, while the expectant mother is wisely urged not to give way unnecessarily to habits of indolence or to apprehension of "maternal impressions" hurtful to the child. When speaking on the care of infancy there is a marked absence of description of the infant, and no instruction or encouragement is given to the mother in observing the conditions of developmental growth and the evolution of brain action such as indicate healthy progress, or the need of special care and advice, this seems to be an omission of importance. The mother's own observations of the growth of her infant's body and the evolution of the brain would prove a strong incentive to maternal care, affording

an additional interest and self-acquired knowledge from experience as to health and growth day by day. The subject of infant feeding naturally occupies much space, and the proper use of the feeding-bottle and the preparation of milk foods affording appropriate diet are described in detail, while the dangers arising from the employment of an exclusive diet of sterilised milk are pointed out. The recommendation to add lime-water to the milk is in accordance with established practice; this helps towards neutralising acidity, but does not usually suffice for that purpose. Human milk has a slightly alkaline reaction; normal cow's milk is either neutral or slightly acid in reaction, and when supplied to the house it is usually acid in a degree not neutralisable by lime-water. Mothers are advised as to their health, exercise, and diet, but are not, we think, sufficiently urged to adapt their habits to the necessities of lactation and to use the natural supply for the benefit of the child, supplemented if need be by bottle-feeding. It is curious to find among the list of fat foods "sweet oil, olive oil, and some cereal oils"; such vegetable products are laxatives, not foods. It also appears of doubtful usefulness to mention to mothers a number of patent foods without explaining their uses and dangers. The chapter on Sleep is good. It would be well if parents learned to observe the infant during sleep, the appearance of the face, and those transient and often asymmetrical smiles which may precede convulsions, as also the hands and twitching fingers accompanied by tooth-grinding which indicate absence of a full condition of brain rest. Education is dealt with in the abstract rather than by pointing out the natural brain faculties which the mother should study to exercise, such as imitation of initial sounds and speech, the use of the hands and their control through the senses. We do not agree with the author that the sense organs are too immature for early culture; a child under three years of age may receive impressions of colour if care is taken to present appropriate coloured objects; the naming and matching of the colours may be left for later training. This and other matters should not be left to chance experience; early impressions afford material for later mental acquisitions. Defective children are briefly described; here in particular the mother's habits of observation will help her to cultivate the special needs of the child.

Sewage and the Bacterial Purification of Sewage. By SAMUEL RIDEAL, D.Sc. Lond. London: Robert Ingram. 1900. Pp. 278. Price 14*s*.

THIS book has appeared most opportunely. Now that the purification of sewage has virtually passed from chemical methods to bacteriological methods the series of practical investigations that have been made on all sides needed crystallising into a *résumé* in which the present position of the subject could be seen at a glance. Dr. Rideal thinks that such a *résumé* would be acceptable to a wide class of readers in this country. We not only join him in this view but congratulate the wide class of readers on the fact that Dr. Rideal has undertaken the task. A *résumé* was decidedly in demand and Dr. Rideal has successfully supplied it in the volume before us. The very title of this work is surely a sign of the times and it is a remarkable fact that what must be regarded as a standard work upon the subject relates incidentally only to the methods of purification of sewage by chemical means, being devoted rather to a detailed and historic account of the life processes of purification—i.e., bacterial methods. We did not think that the views which we expressed 10 years ago would so soon be realised and that the unscientific and anti-utilitarian methods of treatment by chemical precipitants would by the end of the century be banished in favour of more rational methods depending upon the purifying action of microscopic agents. We use the word "rational" advisedly. Chemical treatment did not utilise the nitrogenous constituents of sewage, whereas bacterial methods promised to bring about the long-searched-for ideal, the conservation, as Dr. Rideal puts it, of the valuable constituents of sewage. The food question is very closely related to the sewage problem. The two subjects are adjacent, so to speak, in the maintenance of the cycle of existence, for it should be possible that excreted matters should be so appropriated by plants as to present the original offensive materials in a new and inoffensive shape in the form finally indeed of human and animal food. Hence the logical conclusion that by discharging human excreta into the sea and so entailing an enormous loss of nitrogenous constituents the land will be ultimately starved, and if the land then the plant, and if the plant then the animal. Sir William Crookes did a great service when he calculated that in the sewage and drainage of towns we hurried down to the sea fixed nitrogen to the value of £16,000,000 per annum. Though Liebig and others had anticipated that such a waste would lead to serious impoverishment, yet we have to thank Sir William Crookes for reminding us of this possibility in such forcible and practical terms. The point, however, which we would emphasise is that chemical precipitation gave no hopes after exhaustive experimentation that the valuable constituents of sewage would be realised by this method. It is true that chemical methods cleansed the sewage and stopped it from putrefying and from becoming offensive and a source of pollution to our water-supplies. So far the method was commendable, but mainly from the purely sanitary point of view and not from the economical standpoint. If we could convert the whole sewage in the United Kingdom into nitrates by bacterial methods we should derive, according to Mr. Scott Moncrieff, a revenue of £14,000,000 per annum, which is a recovery approaching in value the loss which Sir William Crookes estimated as occurring annually in the output of sewage and drainage of our towns. And this enormous waste may be obviated by micro-organisms. In this instance, at any rate, we must surely modify the cry, "Sterilise, sterilise," in favour of the cry, "Nitrify, nitrify." It may seem remarkable that the elaboration of bacterial methods applied to the purification of sewage has been slow, but when all the aspects of the problem are carefully considered it will readily be understood why we have not yet mastered all the details. It is on these details that Dr. Rideal's work is most valuable and instructive. There are all sorts and conditions of sewage to be met with in different parts of the country having different degrees of suitability for treatment bacterially, but so energetically has the practical study of the subject in all its aspects been carried on that we do not doubt that sooner or later the bacterial treatment of sewage will be universally applicable and universally successful.

It is now established in many places where large quantities of sewage are being treated that the effluent from the bacterial method is in every way satisfactory, but in spite of this there remains a requirement of the Local Government Board that the effluent must be passed through the land before it is discharged into a river or stream in accordance with the enactments of the Rivers Pollution Prevention Acts. The Local Government Board consider that the requirements of those Acts would be contravened unless the sewage is so purified. As Dr. Rideal points out—and we agree with him according to our observations of several bacterial installations in this country—the insistence on final land treatment is decidedly a mistake when purification is the main object—where a proper process is used no further purification will be necessary. Indeed, it is stated in many instances, and particularly at Hampton, that an originally good effluent suffers great deterioration by subsequent

passage through the land. This requirement of the Local Government Board is to some extent a hindrance to the adoption of bacterial methods, since, *inter alia*, the question of a land-site convenient for the discharge of the purified effluent has also to be taken into account in addition to its suitability for bacterial beds. Of course, this regulation was established before the present degree of purification of sewage by bacterial agencies was arrived at. Representations to the Board were accordingly made upon this point and this action resulted in the appointment of the Royal Commission upon Sewage in 1898, whose verdict we still await and probably shall have to await for some time on account of the great scope of the subject of inquiry. The delay, we fear, cannot be avoided, but until the conclusions of the Royal Commission are made public there is little doubt that the progress with bacterial methods will not be so rapid as is desirable. We feel confident, however, that the conclusions of the Royal Commission, as Dr. Rideal puts it, "will be in accord with those obtained from the experiments which have now been carried out on a sufficiently large scale to establish the safety of embarking on the treatment of sewage on bacterial lines for even the largest centres of population." Certain practical difficulties we all must admit have yet to be encountered, but we are sanguine that these will be overcome.

Dr. Rideal's book is most instructive on all the points connected with the bacterial treatment of sewage and its publication is, as we have said, timely and calculated to assist in attaining a complete solution of a very old and vexatious problem. We congratulate him on this (in our opinion his most important) contribution to the literature of sanitary science.

LIBRARY TABLE.

Glutton or Epicure. By HORACE FLETCHER. Including Nature's Food Filter, or When and What to Swallow, and What Sense? or Economic Nutrition. Chicago and New York: Herbert Stone and Co. Pp. 128.—This little book appears to be the outcome of some reflection and personal experiment on the part of a very benevolently disposed American gentleman. The author's aim is so altruistic and the means he recommends are on the whole so well advised that we are loth to cavil at his occasional logical and physiological mistakes. The preface states that "these studies have been pursued with the view to suggesting simple formulæ whereby busy persons may conserve physical health as an aid to harmony and happiness by preventive means." The simple formulæ alluded to may be gathered from the pages of the book to be "eat slowly" and "chew all things." For the great point that Mr. Fletcher seems to make is that most people eat a great deal too fast, that they get consequently comparatively little nutriment from a needlessly large food intake, and that they suffer many digestive troubles. These are truthful propositions, and Mr. Fletcher in preaching mastication is no more wrong than was the late Mr. Gladstone who practised 33 bites to every mouthful. Mr. Fletcher insists also upon the chewing of liquids—a consummation that appears to us difficult of achievement. Honest endeavours in this direction would, however, no doubt guard against the swallowing of injuriously hot fluids. That such chewing would rob intoxicating liquors of their effect we cannot believe, and the experiment in this respect alluded to by Mr. Fletcher is one of those in which we do not recommend his readers to follow their adviser at any length. As an instance of experimental enthusiasm we may quote a passage. "The author has found that one-fifth of an ounce of the midway section of the garden young onion, sometimes called 'challot,' has required 722 mastications before disappearing through involuntary swallowing. After the tussle, however, the young onion left no odour upon the breath and joined the happy family in the stomach as if it had been of corn-starch softness and consistency." It must not be supposed that Mr. Fletcher's creed often demands a perseverance of this magnitude, for, as he points out, with good food and good cooking comparatively short mastication soon induces involuntary swallowing. On the whole, readers of slight medical knowledge will find much profit in this little book from its quaint and striking directions to a leisurely and moderate manner of feeding.

The Diagnosis and Treatment of Syphilis. By TOM ROBINSON, M.D. St. And., physician to the Western Skin Hospital. Second edition. London: J. & A. Churchill. 1900. 8vo. Pp. 138. Price 3*s.* 6*d.*—We must confess that we do not understand the author's preface, where he tells us that "there seems no necessity, though doubtless much need, of making any substantial alteration in this edition." The progress that has been made in our knowledge of the disease since the first appearance of this work should have been recorded. The author tells us that he abolishes the terms "secondary" and "tertiary" and includes all the manifestations after the initial lesion in the term "sequelæ of syphilis." This is surely an utter misuse of the word sequela, which should be applied to signs and symptoms persisting after the disease itself has come to an end. On the whole a very fair account is given of the chief manifestations and treatment of syphilis.

ASYLUM REPORTS.

Joint Counties Asylum, Carmarthen (Annual Report for 1899).—The average number of patients resident during the year was 630 and comprised 314 males and 316 females. During the year 109 patients were admitted, 49 of these being males and 60 females. Of these 42 males and 52 females were first admissions, the rest being re-admissions. The accommodation remaining the same as in the previous year, there were in residence 32 more patients than before, so that no vacant room now exists for the reception of out-county cases. At the isolation hospital the defective structure of the wall on the west side has for years been a source of trouble. Dr. E. Goodall, the medical superintendent, points out in his report that "a thorough overhauling of the defective parts will be desirable before the building comes into use as a permanent accommodation." Among the admissions is described a case of "moral insanity"—viz., a young girl admitted for the fourth time. "There being no defect or derangement of mind upon which a certificate of detention in an asylum could be returned she could not be kept here. This girl is a source of great trouble at home, but is neither mad enough to be in the asylum nor bad enough to be in gaol, and is probably best suited for a reformatory." One of the cases of acute mania occurred in a man, aged 73 years, and for the first time. He passed through an attack which would have severely tried a man in the prime of life, and left quite well after a short residence in the asylum. Among the admissions the cause of insanity was traceable to heredity in 35 cases, alcoholic excess in 20 cases, recurrence of previous attacks in 16 cases, senile decay in six cases, domestic unhappiness in six cases, epilepsy in five cases, love troubles in four cases, privation in four cases, and the menopause in four cases. Drink was responsible for rather more than 21 per cent. of the cases admitted. Of the admissions 21 were suicidal and 20 were dangerous. During the year 21 cases—viz., 10 males and 11 females—were discharged as recovered, or 3·3 per cent. of the average number resident. The deaths amounted to 46—viz., 25 males and 21 females—or 6·1 per cent., as calculated on the same basis. Of the deaths one was caused by Landry's paralysis, two were due to influenza, two to colitis, three to renal disease, three to general paralysis of the insane, four to pneumonia, four to cerebral atrophy, seven to cardiac disease, and 11 to pulmonary phthisis. Typhoid fever has been absent since the outbreak of 1897. For the prevention of the high percentage of deaths from phthisis isolation and open-air treatment in separate blocks are regarded as highly desirable, and it is hoped that these will be provided for in the future. The farm and garden account shows a credit of £190 and the live stock have been free from disease.

THE LANCET.

LONDON: SATURDAY, OCTOBER 13, 1900.

THE whole history of bubonic plague, as also does the testimony of recent events, points to the fact that the disease steals across the world mainly by unknown channels. It is true that when by the aid of little coloured flags we indicate upon a map the advance of any given pandemic wave we are able to follow its diffusion and the trade route by which it travelled; but when we investigate its progress from point to point we find, generally speaking, that the disease has been present in a town or country long before it was either officially or unofficially recognised. It is this attribute of plague—and for the matter of that of certain other exotic diseases—which has dealt the death-blow to quarantine. In this country we have long since recognised that all attempts to keep plague or cholera out of our islands, assuming the disease to have taken upon itself the truly epidemic garb, are likely to prove unavailing; and hence we have determined to rely largely on the internal machinery of the public health service. At our ports we have what we are pleased to term our first line of defence, but we endeavour to provide that everything which passes through this line shall be carefully labeled with its name and address; in short, the first line of defence is part and parcel of the whole fortification system, and if it plays us false the inland forts are taken by surprise. Within the last few days our outworks at Lynn and along the banks of the Tyne have apparently failed us; indeed, as far as we can see, even the lines of communication have broken down, and the brunt of the attack has devolved, in the first place, upon a medical practitioner, and in the second upon the medical officer of health in a rural district in South Wales These are serious facts, and the Local Government Board have taken the opportunity—we trust it is the psychological moment—to issue a "Plague Memorandum" dealing with "administrative considerations" and with "the symptoms of plague." The document is a model of reasonableness and simplicity, short and to the point. We are encouraged by it to believe that "the plague will not readily fasten upon that section of our population which is properly housed, cleanly, and generally in a sanitary sense well to do; that rather it will especially affect, if it obtains foothold in one or another district, insanitary areas such as are peopled by the poorest class, and where overcrowding of persons in houses and dirt and squalor of dwellings and of inhabitants tend to prevail." Here is the key-note for our sanitary authorities throughout the country, and it is a matter of national concern that they shall respond to the call. It is, we think, probable that the immediate danger is small; but the plague has assumed pandemic proportions, and no small degree of responsibility will rest on the sanitary authority which, in face of the obvious danger of the near future, elects to leave its slums as they are or neglects to see to the working of its administrative machinery. The memorandum here in question takes typhus fever as the type of the disease with which plague may be best compared, and in this it is doubtless right. But let us not be beguiled into believing that because typhus fever is not with us we shall therefore remain free from plague. The latter disease is awake throughout the world; typhus fever is apparently asleep—for the time. Unfortunately, the individual members of our sanitary authorities are apt to leave their consciences too much in the hands of their clerks, but we should be glad to be able to believe that on this occasion the members themselves would read the memorandum and see that the provisions generally are acted upon. The symptoms of plague are tersely set out and the reader is warned as to the danger to be expected from the slight or "ambulant" forms of the malady. Accompanying this document there is also another, embracing directions for obtaining and forwarding for bacterioscopic examination material from suspected cases of plague, whether in the living patient or in the dead subject. The material, which will be examined without cost to the local authority, is to be forwarded to Whitehall by the medical officer of health. So, too, the Local Government Board, with a truly parental foresight, has provided itself with a supply of MR. HAFFKINE'S prophylactic, and the medical officers of health of districts actually invaded by plague may procure from the Board a limited amount of this material. It now remains for the local authorities to support these efforts made by the central authority with a view to meeting the necessities of the situation.

HE who can enter the temple of Æsculapius without reverence would do better to stay outside altogether. The mystery of life, the almost equal mystery of suffering and disease, the ever-expanding knowledge that comes to us of the range of suffering occurring in the creation, the discovery of means whereby this suffering may be at least partially controlled, and the pathetic cry of all sentient beings for the extension of such means constitute a theme which must command the respect of all but the frivolous and the stupid. Every advance in scientific medicine enhances the claim of our science and art to the reverence of those who undertake their study. When medicine was regarded and used as a mystery or a charm, and when its representatives were incapable of appealing to the intelligence of their age or were themselves half conscious of the hollowness of the system or systems which they practised, there may have been excuses for levity and insincerity in its votaries. But such times have gone for ever. Every step in the development of modern medicine as a science appeals to the interest and intelligence of the man who practises it as an art and adds immensely to his responsibility. Those who talk so glibly of the want of reverence in scientific men, and especially in medical men, are misinformed. We should be willing to have the truth of this view tested by the case of our medical students. We believe that even at an early and irresponsible age they are impressed powerfully and advantageously with the spirit of their profession They recognise that it calls for the highest qualities, mental

and ethical, from its members and tends to develop those qualities. They note that the half-hearted student, and even the half-hearted lecturer, make no practical headway, and alike on high moral grounds and grounds of self-interest they take themselves seriously.

The matter and tone of the addresses which have ushered in the winter session at our medical schools will consequently appeal to many thoughtful young men. How could a young man upon the threshold of his medical career start better than the new students at Charing Cross Hospital have done by listening to Lord LISTER as he described his early researches leading up to the antiseptic system? A student entering on the study of medicine cannot expect to make for himself an everlasting name by such life-long studies of deep vital processes as those which have culminated in that antiseptic system which saves thousands of lives every day and has transformed our hospitals from veritable pesthouses to temples of healing, but every student can study the methods by which such success has been attained, and it can do him nothing but good to hope that his own work will be similarly beneficial to his race. He can imitate in a degree the spirit and the devotion with which these methods have been used and he can so acquaint himself with the facts and principles of the system as to ensure that in four or five years he will go forth into the world as a veritable saver of life, to be blessed by his generation wherever he goes. Another address should equally stir the student to be proud of the career of his choice, for it shows how world-wide is the bearing of the study of medicine. We refer to the address of Sir WILLIAM MACGREGOR, K.C.M.G., Lieutenant-Governor of British New Guinea, on Some Problems of Tropical Medicine, delivered at the London School of Tropical Medicine. Sir WILLIAM MACGREGOR modestly spoke of his technical ignorance of some parts of the subjects upon which he touched and excused himself as being an Administrator rather than a Doctor of Medicine. But his address, which we publish this week, is one which no mere Administrator could have written and which no physician could have excelled for the range of its medical knowledge and for the human and almost religious sympathy of its spirit. There is in it, too, that quality of the statesman which should inspire all medical men, especially those who deal with inferior races or classes. Sir WILLIAM MACGREGOR'S tribute to Mr. CHAMBERLAIN, and to the enormous service which as Secretary of State for the Colonies he has rendered to tropical medicine and through it to all tropical races, will be generally appreciated by the profession and even by the public. It is only a part of that larger service of high statesmanship which he has done for the colonies and which has thrilled them with new impulses of life and feeling towards the mother country. Even those who differ most directly from Mr. CHAMBERLAIN in general politics should forget their differences while they admit that he has done his best for races yet incapable of dealing with their own problems of disease. It will be well if both students and practitioners catch the enthusiasm, expressed in every line of Sir WILLIAM MACGREGOR'S address, for the possible results in the as yet untrodden fields of tropical medicine. "The man," he says, "who will work out an effective and practical means of dealing with contagious dysentery will be the greatest benefactor of the races that live in the tropics. He may claim to be the saviour of the Pacific Islander, the most loveable man of men now living."

We have left ourselves no space to speak of other addresses in detail, but our readers have had opportunities of reading last week in THE LANCET the words of Dr. G VIVIAN POORE, of Mr. H. STANSFIELD COLLIER, of Miss L. B. ALDRICH-BLAKE, M.D., and of Professor MCFADYEAN, and this week they will read with equal pleasure those of Sir JOHN WILLIAMS. In these addresses the absolute necessity of hard work, accurate observation, and systematic attention are duly insisted upon, but all the speakers have succeeded in holding up to their audiences a picture of the medical life which shows it to have great intellectual rewards but to offer no inducements to the man who is not earnest and self-sacrificing.

THE October issue of the *International Journal of Ethics* contains a highly interesting paper by Mr. R. BRUDENELL CARTER upon the difficult subject of Medical Ethics. Mr. CARTER has many qualifications fitting him to write with authority upon the theme. He has had in his professional life first-hand experience of general practice, of hospital practice, and of consulting practice, while ophthalmic surgery, which has in him so widely known an exponent, is both a pure specialism and intimately connected with all sides of medicine whatsoever. Moreover, Mr. CARTER was for many years an active member of the General Medical Council and has proved himself there and in other and more public arenas a logical thinker, an acute writer, and a fearless debater. It is not surprising, therefore, that what he has to say upon medical ethics is thoroughly worth reading, and we recommend a perusal of his article to all members of the medical profession, even while he is not in sympathy with movements which we know to make for progress. Ethical questions have a practical importance which has always been inherent in them but to which the immediate conditions of daily life have given unusual prominence, and it is absolutely necessary that the medical profession as a whole should strive to know what are the principles and rules by which professional conduct should be regulated. Undoubtedly the Ten Commandments inculcate the principles and include the rules, but the breadth of the precepts laid down in the Decalogue makes it occasionally difficult in a work-a-day world to decide what exact course should be pursued in concrete circumstances. We may know what is our duty towards our neighbour, but inasmuch as all mankind, and in a very special manner, is the neighbour of the medical man, it may well happen that we cannot see at once what is the line of conduct to follow where one neighbour must be preferred to another. That many medical men experience this difficulty is particularly well known to us who receive daily requests to express an opinion upon the correctness or advisability of acting in certain ways in certain positions. We observe, by the way, that Mr. CARTER doubts the efficacy of this course because, to use his own words, "there is no evidence that the occupancy of the editorial chair has

been preceded by any special study of ethical problems.' We would remind him—though, as he is obviously writing as an ethical expert, he should not require to have the fact pointed out to him—that in every walk of life to some extent a man learns his business by the carrying on of that business. It follows that, however unskilled Mr. CARTER'S imaginary editor may have been at the outset of his medico-editorial career in the theories of ethical lore, when he has sat for ten minutes in the editorial chair he will have begun to obtain an insight into the life of his professional brethren which cannot fail to make of him a very special student of ethical problems. And the editors of important journals, to which alone Mr. CARTER is referring, are not selected without an eye to their qualifications for office. We trust that these remarks will not be considered egotistical; they amount not to any claim of infallibility for ourselves, but only to an indication that we enjoy exceptional opportunities of understanding the difficulties of the medical life.

Medical ethics embrace two sets of questions—questions which relate to the conduct of medical practitioners towards the public and questions which relate to the conduct of medical practitioners towards each other. As Mr. CARTER rightly says, there can scarcely ever be any real incompatibility between the duties which a medical practitioner owes to the public and those which he owes to his calling. And we think that the medical profession as a whole recognise this and do not discriminate between the two classes of questions in any way whatever. Prominence is more often given in medical journals to issues arising between two members of the medical profession than to those arising between medical men and the public, but this is because the columns of a medical journal form a natural place for the discussion of purely medical points, while matters in which the weal of the general public is concerned are better threshed out in the less domestic sheets of the lay press. But whether the debates upon medical ethics are conducted in the medical press or in the lay press, the wisest counsels are always given by those who remember that what is best for the medical profession is best for the public. An efficient code of medical ethics is that code which inculcates principles for the guidance of medical men which, if they follow them, will result in good to the public. The difficult point is how precise should those principles be made—when, that is, should the principles be defined by particular rules. It is obvious that it is not for the good of the community for a medical man either to treat a patient in association with a quack, or to throw the ægis of his professional position over a quack, and thus to enable him to practise an art in which he has not been duly instructed. A medical man must not consult with bone setters or herbalists or allow unqualified persons to visit and treat the public medically in his name, because by such misdoings the public would be gulled into purchasing as medical services the ignorant ministrations of the charlatan. It is easy here to turn the general principle into a particular rule. But the translation may not be so simple and obvious. A medical man holding certain club appointments which place him in the position of the paid servant of laymen who demand from him work which he cannot do for remuneration which does not remunerate him, is not working for the public good. In many instances he is over-worked because the persons who avail themselves of his services are persons who really ought to pay for other medical assistance. In some instances he is underpaid because the lay managers of the association employing him desire to show a pecuniary balance, and can only do this by cutting down such immaterial expenses as the drug bill and the medical officer's salary. What rule, if any, is to be made about the men who fill these posts, for clearly they cannot be regarded in the category of those who regard quackery with complacency? Mr. CARTER gives no advice to the members of his profession upon this crucial point. He states the position and contents himself with adding that the General Medical Council cannot possibly treat members of the profession who choose to undersell their professional services as persons guilty of infamous conduct in a professional sense. We agree with Mr. CARTER here, but we cannot acquiesce in the view (which may or may not be his view, but which is held by many respectable persons) that nothing need be done. The principles of medical ethics are being violated and it is the proper part of the medical profession to make an organised attempt towards preventing the spread of the evil.

There is no longer any doubt in the minds of those members of the medical profession who have given ethical matters a share of their attention that the great weapon against abuses in any locality is solidarity of medical opinion. The series of articles which have appeared in our columns under the titles of "The Battle of the Clubs" and "Hospital Abuse," while proving that certain evils are widespread, have also shown that in many localities organised opposition to the exploiting of the medical profession has led to an abatement of abuse. This fact should encourage medical men in other districts to meet and to agree upon a definite line of action in regard to medical aid associations, while they should put completely out of their minds the idea that in forming and supporting such combinations they are exhibiting evidence of decadence from the standards of proper professional behaviour. It is the clear duty of medical men, upon the soundest ethical grounds, to take all measures to obtain for the public adequate medical service. Cheap medical work done by contract for lay employers, being without its proper professional stimulus, tends to become bad medical work, and to suffer bad medical work must always be contrary to medical ethics. This is the view which the medical profession should strive to educate the public to understand. They will not find it easy while some of their professional brethren can be found to stigmatise all attempts at the formation of professional opinion as mere combinations to raise prices, but they must not relax their efforts. From the constitution of modern society it follows that the principles of medical ethics cannot always be stated in rules, but the medical profession is doing its duty when it orders its conduct strictly towards providing the public with the best medical service.

UNIVERSITY COLLEGE, BRISTOL.—The introductory address in connexion with the Faculty of Medicine of University College, Bristol, was delivered on Oct. 1st by Professor Stanton of the Engineering Department. The lecture dealt with the relative economy of the power derived from animals, food, coal, and other sources.

Annotations.

"Ne quid nimis."

ANEURYSM OF THE RENAL ARTERY.

AMONG the rarest forms of aneurysm may certainly be classed aneurysms of the renal artery, for in an elaborate and interesting paper on this subject published in THE LANCET of Oct. 6th (p. 1002) Mr. Henry Morris tells us that he has been able to find only 21 recorded instances in the whole of medical literature. In two of these no particulars were obtainable, and of the 19 remaining cases 12 arose from injury and seven were spontaneous in origin, and from these figures it is seen that injury is the cause in nearly two-thirds of the cases. Of the seven spontaneous aneurysms four were found at the necropsy and appeared to have given rise to few or no symptoms during life; in two others a tumour causing pain was noticeable; and the last case is remarkable seeing that in it the tumour and the kidney were successfully removed by Professor W. W. Keen of Philadelphia. In the traumatic cases the most common form of injury appears to have been a fall. The earliest traumatic aneurysm of the renal artery on record is related by Nebel who describes the case of a medical man. He fell from his horse and four years later, in 1717, he developed a pulsating tumour in the left side of the abdomen and he died from the aneurysm bursting into the peritoneal cavity. Curiously Titius describes in 1798 a very similar case, also of a medical man, who fell from his horse and died four years later from an aneurysm of his left renal artery. It is perfectly possible that these were two distinct cases, but the coincidences are so many and so striking that we are justified in concluding that we have two separate accounts of one case. As might be expected, the traumatic cases show a great preponderance in frequency in the male—two cases out of the 12. The age of the youngest patient was 15 years and of the oldest 66 years. In many of the cases a "false" aneurysm was present—that is to say, an aneurysm no part of the wall of which was formed by the wall of the artery. This false aneurysm may be formed in one of three ways: it may result from the giving way of a small "true" aneurysm, which may have been of spontaneous or traumatic origin; or it may result from the yielding of a thrombus which has temporarily closed a ruptured artery; or, in the third place, it may be formed by the immediate outpouring of blood from a ruptured renal artery. In the case under his own care which Mr. Morris has contributed to the series the aneurysm followed immediately on the wound of the artery, and when operated on it was found to contain "several pounds' weight of blood-clot." The diagnosis in these cases is often extremely difficult, for in most of them the two chief signs of an aneurysm, pulsation and bruit, are absent. The history of an injury will be of but little assistance, for malignant growths are apt to follow injury, and hydronephrosis also may be traumatic in origin. In the absence of pulsation the diagnosis may remain uncertain until an exploratory incision has been made. The prognosis is extremely grave. Every case that was not operated upon died. Of the four cases in which an operation was performed three recovered; two of these successful cases were traumatic in origin, and the third was the spontaneous false aneurysm, under the care of Professor Keen, which has already been mentioned. The records of these cases speak clearly as to the treatment to be followed. The only chance of saving the patient's life is to perform excision of the kidney, with removal of the aneurysmal swelling. If pulsation be present this may be decided on before the operation is commenced, but more commonly it will only be after an exploratory incision that the diagnosis will be made. The dangers from hæmorrhage and from shock render the operation distinctly formidable, but the risk to the patient will be less than if the aneurysm be allowed to enlarge. Mr. Henry Morris's paper is a valuable contribution to the elucidation of an obscure subject.

THE "LIMANKUR" IN ODESSA.

THE term "liman" has been applied to the deposits of mud found at the mouths of rivers, but we here use it to denote an inland sheet of salt water formed by the silting up of the outlet of what was once an arm of the sea at the place where a river falls into it. Odessa possesses three of these unusual features of the landscape called respectively Kujalnitzkiliman, Chadjebeiskiliman, and the liman of Liebenthal, of which the two former are the most important from a medical point of view. The Kujalnitzkiliman is rather more than five miles from Odessa, is more than 18½ miles long, and is from one and a half to two miles broad; its depth is from six and a half feet to 16½ feet. The "porosyp," or embankment of sand and mud, between the liman and the Black Sea is about a mile and a quarter broad. The Chadjebeiskiliman is four and a half miles from Odessa, is 20 miles long, one and a half miles broad, and has an average depth of from 20 inches to 13 feet. Evaporation has had the effect of making the liman water much denser than sea water, but its level and concentration are affected by rainfall and snow. Analyses of the water of the Kujalnitzkiliman made in 1870, 1872, and 1894 show some extraordinary variations. The last of these gave the total solid residue as 79·8 parts per 1000 and the sodium chloride as 58·0 parts per 1000. Analysis of the water of the Chadjebeiskiliman made in 1896 gave the total solid residue as 63·5 parts per 1000 and the sodium chloride as 48·1 parts per 1000. The total solid residue of the water of the Black Sea in the Bay of Odessa was found in 1894 to be 16·8 parts per 1000 and the sodium chloride to be 13·0 parts per 1000. The average temperature of the liman water from June to August may be put at 18·6° R. (74° F.), the average summer temperature of the air being 72° F. Both animal life and plant life are well represented in a liman. At the bottom of the water there is abundance of black mud of organic origin having an alkaline reaction and smelling strongly of sulphuretted hydrogen. In 1892 new baths belonging to the municipality of Odessa were opened on Kujalnitzkiliman at a place about five and a half miles from the city and accessible by a railway. The site has an area of 53,000 square metres (13⅛ acres) and the buildings, which are on the pavilion system, are divided into two sections for brine baths and mud baths, first and second class of each, with separate departments for each sex. Patients may bathe in the open liman for from five to 20 minutes once a day, or twice with at least five hours' interval. They may also have artificially-warmed baths of the same water. Mud baths may be had, the mud being either warmed naturally by the sun's rays or artificially by steam or hot water; the temperature of these baths is from 28° to 33° R. (from 95° to 106° F.), and the duration from 10 to 30 minutes; the mud bath is followed by a cleansing bath in fresh water, after which the patient goes to bed and assists perspiration by drinking hot tea, generally in astonishing quantities. Sand baths are also given in the sand surrounding the liman. The patient lies motionless in the sand either in the open or else in long boxes (Wannen) under a layer of sand four centimetres (one and a half inches) in depth, and they remain exposed to the sun's rays for from half an hour to an hour with a screen to protect their heads from the sun. The "limankur" is indicated in rheumatism, rickets, the results of traumatic

inflammatory processes (i.e., callus, ankyloses, and contractures), chronic joint diseases, osteitis, periostitis, myositis, pareses, neuralgias, chronic diseases of the skin, and late forms of syphilis. The treatment is contra-indicated in febrile diseases, heart diseases, arterio-sclerosis, amyloid degeneration, severe cerebral disease, epilepsy, pulmonary tuberculosis and new growths. With due precaution the baths may be taken up to the commencement of the second half of pregnancy. The natural features of these health-resorts and the methods of treatment followed there have been fully described in the *Deutsche Medicinische Wochenschrift*, first by Stabsarzt Dr. Wilke of Dresden in 1897, and recently by Professor Adolf Baginsky of Berlin.

THE MEDICAL SOCIETY OF LONDON.

A MEETING of this society was held on Oct. 8th, the chair being occupied at first by Dr. Frederick Roberts and subsequently by Mr. John H. Morgan, the out-going and in-coming presidents respectively. The treasurer, Mr. D. H. Goodsall, presented his annual report. The subscriptions amounted to £508 14*s.* 6*d.*, and though they were quite up to the average there had been no increase. The receipts included subscriptions from Fellows towards a magic-lantern, £16 4*s.* 6*d.*, but this was not sufficient to purchase the instrument. The expenditure was about the same as last year and there remained a balance of £300, by which the whole of the debentures would be redeemed. Mr. H. Willmott Evans proposed, and Mr. John H. Morgan seconded, the adoption of the treasurer's report and a vote of thanks to that officer. Dr. George Shuttleworth proposed, and Mr. J. Peeke Richards seconded, a vote of thanks to the retiring officers and councillors. Mr. John Harold proposed a vote of thanks to the retiring President, Dr. Frederick Roberts, and this was seconded by Mr. Carter Braine. Dr. Roberts responded and conducted Mr. John H. Morgan, the in-coming President, to the chair. Mr. Morgan then delivered an address on the Romance of Surgery, which is published in full at p. 1061.

LUNG DISEASE IN THE NAVY.

A LETTER which appeared in the *Times* of August 16th, signed "Ernest Rason, retired Captain, Royal Navy," and headed "Lung Disease in the Navy," has aroused a good deal of interest and elicited a considerable amount of correspondence. Captain Rason quoted some figures which at first sight would certainly tend to show that lung disease in the navy has considerably increased during recent years. His figures show that "whilst the total of general disease has decreased one-fifth, diseases of respiratory organs have increased nearly one-fourth, that the increase of cases on the home station of diseases of respiratory organs has increased 60 per cent., and whilst the invaliding has more than doubled since 1883 from this complaint the general total of invaliding on home stations has considerably decreased." These conclusions are certainly disturbing to those who have the interests of the navy at heart, but when the figures are more closely examined certain fallacies are discovered. In the first place, Captain Rason was unfortunate in the years he selected for comparison—viz., 1868, 1883, and 1898. The above conclusions are fallacious, as the official statistics were after 1886 calculated on quite a different basis to previous years. Again, the term "diseases of the lungs" is very indefinite; in 1883 tuberculous disease of the lungs was not included under "diseases of the lungs" but under the heading "tubercle"; hence the inclusion of cases of pulmonary tuberculosis in later years under "diseases of the lungs" would make a vast difference in the statistics. In 1883 there was no influenza epidemic but in 1898 such an occurrence was the occasion of a very large number of cases being included under "diseases of the respiratory system," thus again detracting from the value of Captain Rason's figures. With reference to tuberculous diseases, mainly of the lungs, in 1883 there were 4·08 cases per 1000, in 1898 only 2·68—that is, of the total force; whilst on the home station in 1883 there were 4·09 per 1000 and in 1898 2·49 per 1000, thus showing that tuberculous disease has actually decreased. Further, the statistics of 1868 show a considerably higher ratio of invaliding than those of 1898. The fears to which Captain Rason's statistics would give rise are therefore groundless. The correspondence by which this letter was followed is of interest as drawing attention to the different mode of life which is now experienced in the Navy as compared with the time when wooden sailing ships were employed. In the steel steamships the men are certainly not so much in the open air as formerly, and if there be any increase in the number of diseases of the respiratory system this is probably the main cause. The suggestion that diseases of the respiratory organs are contracted in the training ships would appear to be improbable as the greatest attention is paid to prevent overcrowding and to promote efficiency of ventilation.

THE PROPOSED MEETING IN LONDON IN 1902 OF THE INTERNATIONAL CONGRESS OF GYNÆCOLOGY AND OBSTETRICS.

OUR readers are aware[1] of the circumstances under which an International Congress of Gynæcology and Obstetrics was proposed to be held in London in 1902. We are now requested by the Council of the British Gynæcological Society to publish the following translation of a letter from Dr. Jacobs of Brussels, permanent secretary of the Congress, to the secretary of the society:—

Much honoured confrère,—I write in the name of the foundation members of our Congress to ask you to express to the President and members of the British Gynæcological Society our united thanks for the efforts you made with a view of the next session of the Congress being held in London. We are convinced that the incidents which under the influence of certain members of the Obstetrical Society recently occurred in England are alone responsible for the failure of those efforts and that otherwise the British Gynæcological Society would have secured for the session next ensuing a brilliant success. On the other hand, when made aware of those incidents, the founders found it impossible to ask your society to continue the organisation for the Congress to meet next time in London.

In thanking you for all you have done in our behalf we desire to inform you that it is our decided wish that at some future time the Congress may meet in London, and our hope that the eminent members of the medical profession in England who are interested in the progress of obstetrics and gynæcology may become permanent members of our International Society.

Accept, &c., the assurance of my most profound esteem,

(Signed) JACOBS.

We are glad to see by the letter that the foundation members of the International Congress of Gynæcology and Obstetrics have taken the sensible course of postponing any meeting of the Congress in London for some years. By that time we may well hope that the differences of opinion which threatened to mar the success of the Congress which it was proposed to hold in 1902 will have been forgotten and will not be allowed to jeopardise the success of any future meeting. As we urged in an annotation upon the subject in THE LANCET of July 7th of this year, we think that when the question of a meeting of the Congress being held in London is next mooted it will be best to carry out the arrangements quite irrespectively of any particular society. The leading obstetricians and gynæcologists of the United

[1] THE LANCET, May 12th (p. 1396) and 19th (p. 1466), 1900.

Kingdom do not owe their position to their connexion with any society and an invitation issued in their names by a general committee would carry much more weight than one issued by the council of the Obstetrical or Gynæcological Societies. In a matter of this kind the disagreements of individual societies should not be allowed to intervene. We feel sure that in a few years' time a meeting in this country of the International Congress of Gynæcology and Obstetrics, invited by a representative committee of the obstetricians and gynæcologists of Great Britain and Ireland, should not fail to be an unqualified success.

DRUNKENNESS IN RUSSIA.

WE have already informed our readers[1] that even in Russia the offence of drunkenness is coming to be regarded much more seriously by the law than has hitherto been the case. Both parties in the Royal Commission presided over by Lord Peel recommend that drunkenness *per se* in public should henceforth be considered an offence, but we scarcely venture to expect such rigorous enactments in this country as those which have been already brought into action in Russia. In accordance with these all persons found intoxicated in streets and public places will be sentenced to terms of imprisonment varying from three days to a fortnight. A repetition of the offence is punishable with three months' imprisonment. If the accused is remanded the time which he spends in prison whilst he is awaiting his trial is not to count in his favour. It is said that the effect of this law, if rigidly applied to all drunkards in the streets, will be to throw at least 10 per cent. of the population into gaol.

THE NEW LABORATORIES OF KING'S COLLEGE, LONDON.

THE new science laboratories of King's College, London, will be formally opened on Tuesday, Oct. 30th, at 5 P.M., by Lord Lister, P.R.S. The Lord Mayor and sheriffs will take part in the ceremony, and a great number of invitations have been sent to representatives of learned societies, City companies, and local governing bodies, as well as to members of the teaching staffs of other colleges and medical schools. King's College has long held a prominent position on account of the excellence of the teaching which is carried on within its walls. The popularity of the classes, especially of those attended by non-matriculated students, and the demands for further accommodation for original research have necessitated such an increase of space as to involve an entire re-arrangement of the existing laboratories. The council wisely decided to meet this need by providing new buildings, structural alterations, and new equipment which will cost over £20,000. An appeal was made to the public which, in spite of the demands for the various war funds, was generously, however inadequately, responded to. The new scheme was nevertheless carried out and a large debt has been incurred, but the College has at any rate the satisfaction of possessing laboratories for physiology, bacteriology, biology, botany, and geology which can compete with the best laboratories of the continental schools. The physiological laboratories are entirely new and form a magnificent suite of rooms consisting of a very large central laboratory fitted with all the requisite apparatus, a room for advanced classes, a laboratory for physiological chemistry, and a room for the professor. The bacteriological department, which since its foundation nearly 15 years ago has been the most complete of its kind attached to any medical school in England, has been considerably enlarged. There are a technical laboratory, a new class-room, a research-room, and a bacteriological library which we believe to be unique. There is also a new lecture theatre available for both bacteriology and physiology. In the same block there are also very fine rooms and laboratories to be devoted to teaching and research in geology and botany. The College museum has also been moved and the old museum has been reconstructed and fitted for the architectural department. The transference of the physiological department to the new buildings has enabled the anatomical department to obtain much-needed additions by absorbing the old physiological laboratories. There have also been great improvements made in the accommodation for teaching physics, pathology, materia medica, and state medicine as a result of the additions to the College premises. The new laboratories will be open for inspection after the ceremony and any member of the profession who has not received an invitation to be present may obtain one by applying to the secretary of the College.

[1] THE LANCET, July 14th, 1900, p. 121.

ETIOLOGY OF PELLAGRA.

IN *Il Policlinico* of Sept. 1st Dr. Ferrati of Pavia records some observations which he has made on the symptoms produced by fungus-infected maize. In 1896 he and Dr. Gosio published in the *Rivista d'Igiene e Sanità Pubblica* researches showing (1) that the watery or alcoholic extract of maize containing hyphomycetes is very toxic for the common grey mouse (mus musculus), and (2) that the toxicity is due to, or associated with, a putrefaction simultaneously giving rise to products belonging to the aromatic series ("fermentazione aromatica"). Dr. Ferrati and Dr. Gosio used only the common mouse for their experiments, this animal being very sensitive to the toxins elaborated in maize. Dr. Pelizzi and Dr. Tirelli had, however, announced in 1894 that the putrefaction products of maize containing hyphomycetes were not toxic for rabbits or dogs, and with the object of testing this statement Dr. Ferrati continued his researches during 1897. Porridge ("polenta") made with good maize flour was cut into large thin slices which were sterilised in a current of steam at 100°C. for 30 minutes on three successive days. Having remained sterile for the next three days the porridge was treated with spores of penicillium glaucum suspended in sterilised water. The penicillium glaucum had been freshly isolated from maize, and when it was cultivated on Raulin's fluid there was an abundant production of phenols giving a red-violet colour with ferric chloride. In a few experiments common yellow bread or bread made with a mixture of maize and rye such as is sold in the shops in Pavia was submitted to the same process. The porridge or bread thus treated was left in the dark at the ordinary temperature for eight days and was then extracted with alcohol, the extract thus obtained being afterwards dissolved in water and administered to various animals either subcutaneously, intravenously, or mixed with their food. Except with mice all attempts to produce acute poisoning with the extract failed, but chronic poisoning could unquestionably be brought about in dogs, although not in rabbits. A dog weighing 5 lb. treated with subcutaneous injections of the extract on alternate days became in 16 days affected with general debility, drowsiness, and profuse diarrhœa and died 35 days later—namely, 51 days from the commencement of the experiment. A second dog weighing 12 lb. was fed plentifully with good bread, to which were added every day 150 grammes of the porridge or bread containing penicillium glaucum, boiled with sugar and water or milk. In 64 days it suffered from general debility, stiffness of the body and of the hind legs, dysphagia, and diarrhœa with blood in the fæces. 43 days later it was attacked with convulsions and the feeding with the fungus-infected maize was then finally abandoned. The convulsions ceased in about a week and the animal gained a little of the weight which it

had lost, but it continued to suffer from stiffness of the back and spastic paresis of the hind quarters, and it died 173 days from the commencement of the experiment. Dr. Ferrati points out that the symptoms presented by this dog were almost identical with those produced in dogs fed on damaged maize ("mais guasto") gathered in the fields as described by C. Lombroso in 1891. In conclusion, he states at some length his reasons for supposing that pellagra is due to toxins produced in maize by moulds (hyphomycetes) and not to toxins produced by bacteria (schizomycetes).

A POLICE-COURT REFORM.

THE law's delays are proverbial and the cost which these entail has often proved a highly inconvenient and an injurious reality. For this reason the London public will follow with more than ordinary interest the fate of a proposal which is now before the Home Secretary, and which aims at lightening the duties of metropolitan police magistrates by transferring a portion of their less important business to the hands of county justices. In the opinion of some the proposed arrangement will prove beneficial both by relieving a stress of work and by keeping out of a criminal court a relatively innocent class of cases such as those of non-attendance at school and others of miscellaneous character. Others, however, maintain that further legal efficiency is rather to be sought by adding to the number of metropolitan police magistrates. Whatever decision may finally be arrived at it is much to be desired that the result will be a quickening of the too slow movement of law in an urban police-court. Much, we trust, may be expected from a redistribution of business, but even this must partly fail of its object unless it is supplemented by the adoption of more business-like methods than those which now prevail. The summoning and hearing of witnesses in particular might well be carried out on some better system than that at present in use. It should at least have some relation to the date and hour at which their evidence is likely to be taken. We allow that the duration of the hearing of cases is uncertain, but even so it should be possible to arrange them in some sort of order so as to obviate the attendance of witnesses for several days before their services are required. Bail cases are commonly taken late in the sittings of the courts, yet we have known witnesses for such cases to be called for the earliest hour on the first day of the sittings. It is hardly necessary to point out how greatly a want of method such as this indicates must interfere with the conduct of ordinary business. Our own profession is a sufferer by this lack of order and it is not necessary to dwell on the possible consequences of a practitioner's uncertainty in cases of critical illness. The saving of court expenditure, moreover, wherever practicable, is a not unworthy object. By a little ordinary foresight and management it might in many cases be at least halved. For more reasons than one, therefore, it is to be hoped that the very moderate measure of reform which we have indicated will not be overlooked in the proposed adjustment of police-court business.

ASTHENIC BULBAR PARALYSIS.

DR. ARTHUR J. HALL of Sheffield records in the summer number of *Brain* an interesting case of asthenic bulbar paralysis, a rare disease and characterised by symptoms similar to those of a case under the care of Dr. Wharton Sinkler previously recorded in these columns.[1] The case is that of a married woman, aged 44 years, a multipara, a sufferer from migraine and descended of a long-lived but nervous stock. Two of her sisters have suffered from severe migraine and a third sister has melancholia. There is no personal history of syphilis. Recently she has suffered profuse and painful menstruation and has had two years of considerable domestic worry and anxiety. The present illness began in December, 1896, when she complained of general muscular weakness. "She always seemed tired and could not even hold a tea-cup for long at a time." On Christmas Day she developed ptosis on the left side, while a swelling appeared on the same side of the face. The weakness and ptosis gradually increased, and one day in February, 1897, she fell down apparently from excessive weakness. She was put to bed and complained of headache and said that "things appeared all out of shape." Slight ptosis then appeared on the right side. The ocular muscles acted irregularly and she lay in bed languid and depressed with extreme muscular prostration, being unable even to sit up. There was no muscular wasting or loss of sensation. Control over the sphincters was normal. The superficial and deep reflexes were normal and there was no ankle clonus. Speech was slow and droning and the voice was feeble and tired. The muscles of mastication were easily tired. Ophthalmoscopic examination showed no abnormality in the fundus of the eye and electrical reactions were perfectly normal. She was placed in a private nursing home and treatment according to Weir-Mitchell's method (overfeeding, isolation, electricity, and massage) was carried out under which she improved a little for a while. The diagnosis was doubtful. A menstrual period then came on which lasted 10 days, during which she menstruated profusely. She now became rapidly worse and extremely feeble and depressed. She had occasional attacks of dyspnœa and the circulation became feeble. On April 2nd she had some beef-tea after which she suddenly began to have dyspnœa, became cyanosed, and died in a state of collapse, the respirations being stertorous and the pulse 100, while urine was involuntarily passed before death. A post-mortem examination of the brain and medulla oblongata was made on April 5th and so far as could be distinguished by the naked eye the examination "revealed absolutely nothing in any part of the membranes, vessels, or nervous tissue which could be distinguished from that of a perfectly normal adult." Portions of the pons, medulla, cerebral and cerebellar cortex were hardened in Müller's fluid, cut in celloidin, and stained by Weigert's method, aniline blue-black and alum-carmine. "A careful examination of a large number of sections failed to reveal any changes in the nerve-cells or fibres or in the interstitial tissue or blood-vessels." The disease was thus known to be the rare nervous affection known as asthenic bulbar paralysis or myasthenia gravis, only 10 cases of which have been described in this country since Wilks first described it in the *Guy's Hospital Reports* for 1877.

[1] THE LANCET, Oct. 21st, 1899, p. 1110.

THE EXPECTATION OF STATURE IN BOYS AT 13 YEARS OF AGE.

IN France boys of 13 years of age who are orphans or whose parents may be in necessitous circumstances are admitted into State schools with a view to their becoming soldiers. The course of instruction extends over five years, but during this period the pupils are not taught any profession or trade which would enable them to gain a living as civilians. At the age of 18 years they are admitted to the ranks, provided that their stature is sufficient, but should they fail to measure five feet (which is the minimum standard for a French foot-soldier) they are summarily rejected. Writing in the *Archives de Médecine et de Pharmacie Militaires* for August Surgeon-Major L. G. Godin proposes to save these young men from being thus "thrown literally on the pavement" by fixing a minimum height below which no candidate for admission to the Government military schools can be accepted. It is quite possible, he thinks, to predict the stature which a boy of 13 years of age

will have attained to on the expiration of five years. According to authorities consulted by him the average increment during the lustrum in question is 20 centimetres, or nearly eight inches, but should this datum be adopted it would place the rejection height at 1·34 metres, which his experience teaches him is not sufficiently low. Of 1000 boys whose cases came under his personal observation seven measured 1·33 metres at the age of 13 years, 13 measured 1·32 metres, and six measured 1·31 metres. In the first category three boys attained to the regulation height in five years, in the second the number successful was also three, but in the third there was only one, the percentage of failure being respectively 58, 77, and 84. In conclusion Surgeon-Major Godin gives it as his opinion that all boys of 13 years of age who measure 1·34 metres and upwards may be freely accepted in the schools, but that in the cases of boys who are under this height the examining medical man should look for guidance to the attendant circumstances. If an undersized boy has been badly fed, presents no signs of puberty, and has parents of good stature, the chances are that he will grow sufficiently during his period of probation. To chest circumference and weight as indicators of future height Surgeon-Major Godin attaches little or no importance. The minimum height he would establish is 1·30 metres. 12 boys out of the 1000 were of that stature or less when they were 13 years old, but not one of them grew sufficiently during the next five years to enable him to pass the test.

BACTERIAL LIGHT.

WE are indebted for a good many things to the wondrous synthetic and analytical powers of micro-organisms. Bacteria are being utilised in the arts and manufactures and they promise soon to be the effectual scavengers of the offensive products incidental to the existence of human life. Indeed, it would seem that the great species of bacteria around us present a variety of functions which doubtless could be turned to many a good account. Bad microbes we know there are whose subtle operations set up the specific poison of disease, but it would indeed be a very odd circumstance if time should prove that the microbe can be so manipulated as to afford us artificial light. Yet there exists a microbe which when properly fed will grow and multiply enormously, emitting during its development a strange phosphorescent light. In the past we have been wont to look upon phosphorescence as a phenomenon due essentially to the presence of phosphorus somewhere. We now know that this is a mistake, for phosphorescence occurs in a very great number of instances in the entire absence of phosphorus. Phosphorescence is undoubtedly a manifestation of chemical or physical change, but the change, of course, may not always be due to the working of countless microscopic organisms. It certainly is in the case of the phosphorescence of the sea. In this case the phosphorescence is best when the sea is disturbed and the maximum of light is emitted from the crest of a short, rapid wave or in the foam produced by some disturbance. This is due to the fact that the phosphorescent bacteria or photo-bacteria are much more active in the presence of an excess of oxygen. Indeed, the respiratory exchange or oxidation of the bacteria is the cause of sea phosphorescence, since if the micro-organisms be killed or oxygen be excluded the light is quenched at once, while on adding an abundant supply of combustible food-stuff such as sugar the light is intensified. The glow of ordinary yellow phosphorus is, of course, due to direct oxidation without the agency of micro-organisms. The peculiar greenish glow seen upon stale haddocks and other sea fishes is produced by this remarkable photo-bacterium and is in no way connected with the presence of phosphorus. It is possible to cultivate the phosphorescent bacteria so as to obtain a fluid which is very strongly phosphorescent. Thus by placing the flesh of fresh haddocks or herrings in a from 2 to 3 per cent. solution of common salt and keeping at a low temperature—about seven degrees above freezing—it will be found that after a few days, not merely the fishes, but also the whole of the liquid in which they are immersed, give off a pale greenish light which becomes much more brilliant if a little sugar be added. Pure cultures may thus be obtained exhibiting such a strongly phosphorescent light that by protracted exposure they may be photographed by their own light. It is not possible to say whether the culture will ever be carried to such a pitch that the vessel containing it may be used with advantage as a street lamp or a lamp upon our tables, or as a Chinese lantern at our garden-parties. But the wonderful functions of bacteria are many and the possibilities of using their powers multifarious.

EPSOM COLLEGE.

FOR some years past the boys in this school have done themselves no little credit in various public examinations and the work of the staff continues to yield excellent results. In the last five years the school has gained 12 open scholarships at the universities for classics, mathematics, history, and natural science. One boy has passed direct into Woolwich and passed out in the Royal Engineers. No less than 73 boys have passed the London Matriculation, 21 boys have passed the whole of the Preliminary Scientific Examination at one time direct from the senior modern form, and 21 others have also passed one part of the same examination. Three boys have passed the intermediate examination for the degree of B.Sc. and two others have been successfully prepared for the first conjoint examination. Each summer several whole forms enter for the higher and lower certificates of the Joint Universities Board. 36 higher certificates (with four distinctions) and 144 lower have been won and in this period the total failures in these whole forms amount to 50 only. In making such a summary as this it is useful to turn to the doings of boys who have left the school. Amongst other distinctions gained we may notice a first and a second class in classical moderations at Oxford and a second in the classical tripos at Cambridge, three first classes and five second classes in the science tripos at Cambridge, besides honours in law and in history, the "Sword of Honour" at Sandhurst, a gold medal with honours in the final examination for the M.B. Lond., and many other distinctions in various medical examinations. There is scarcely a hospital in London at which important posts have not recently been held, or are now held, by former members of the school, and those who have proved failures after leaving the school may be counted on the fingers of one hand. The pupils of the college being drawn from all classes of society, a breadth of tone in the educational and school life pervades the whole school, with results much to the advantage of the students in their after life.

MISLEADING NEWSPAPER REPORTS.

A REMARKABLE paragraph recently appeared in one of the morning papers to the effect that the country is exposed to grave dangers from epidemics of enteric fever originating from the return of invalided soldiers from South Africa. An outbreak of enteric fever occurred in a village, and according to the newspaper report the medical officer of health of the district stated that upon investigation he attributed the outbreak to a member of the Imperial Yeomanry who had returned home invalided from the front in August. He had been inoculated against enteric fever and on his return was allowed by the military authorities to proceed home instead of going to Netley Hospital.

Two days afterwards a relative became ill and numerous other cases of enteric fever subsequently occurred in the village. The report adds: "The medical officer thought that the attention of the Government should be called to the case, as if patients of this sort were allowed to return direct to their homes there was a great danger of a general epidemic in the country." There are obvious absurdities in the above report, such as the idea that a person who has been "inoculated" against enteric fever could convey the disease to another, or that enteric fever could appear only two days after the supposed exposure to infection. We communicated with the medical officer referred to and received a reply from him showing how inaccurate the report was. The member of the Imperial Yeomanry referred to was inoculated with the serum for prevention of enteric fever on the voyage out to South Africa, but nevertheless suffered from an attack of the fever in May and was invalided home in August, and he was two or three weeks in his father's house before other people were attacked. We do not think that it has at all been proved that the outbreak of enteric fever in the village referred to can be traced to the home-coming of this member of the Imperial Yeomanry. Our knowledge of the length of time during which a patient may remain a source of infection after certain fevers is not definite, but it would seem to be very improbable that if the patient had been attacked with enteric fever and had been invalided home in August (unless, indeed, the disease had been prolonged by relapses) he could then have been the means of conveying infection to others. Every care will, of course, be taken with soldiers returning home from South Africa to prevent them becoming sources of infection, but the time allowed for convalescence is in nearly all the cases considerably longer than that allowed for patients who have been treated in English hospitals, and there is no cause for fear that the return of our soldiers is likely to prove a source of danger to their friends or to the community at large.

THE DEW-PONDS ON THE DOWNS.

THE formation of dew-ponds on the downs, notably on the South Downs, has given rise to some very interesting speculation. Some of the ponds are of such size that it is a matter for wonder that the large bulk of water contained in them is maintained in spite of the enormous evaporation that must go on. There is a factor somewhere which must compensate for this rapid evaporation in such an exposed position for in dry weather or drought the dew-pond remains full while the ponds in the valleys are empty. This factor, whatever it may be, is an important one, since without it the supplies of water for the sheep on the hills would probably soon cease. There is some contention as to the probable explanation of the supply of water being thus kept up. Recently, however, some experiments have been made of a quite simple character which, so far as they go, indicate how it is that water is almost always found in these high elevated hollows. The source of water at any rate is not a geological one. It is thought that a difference of electric potential must cause an attraction between the particles of moisture and the summit of the hill upon which the pond is situated. A simple experiment would seem to confirm this view. Thus by placing two similar receptacles in the neighbourhood of a dew-pond it was found that there was a marked increase in the water collected in the basin which was connected to the earth by means of a conductor, while in the insulated basin the quantity collected was decidedly less. Although this simple but extremely interesting experiment was necessarily imperfect owing to the difficulty of completely insulating a vessel under an environment of moisture, yet the indication seems clear. Whether or not by a perfect system of "earthing" reservoirs the quantity of water in the dew-ponds could be increased is a very interesting possibility to ponder over. Possibly if good results were obtained by this method we might derive a new, as it certainly would be a remarkable, source of supply of water for drinking purposes. The water so obtained would of course be pure and practically identical with distilled water.

LEONTIASIS OSSEA.

IN the September number of the *Medical Chronicle* Mr. W. H. Stephenson of Harpurhey, Manchester, describes a case of the rare disease leontiasis ossea. The patient was a man 27 years of age. When 13 years of age he noticed for the first time a slight hard painless swelling on the left side of the lower jaw which had been gradually increasing in size ever since. About 18 months ago a similar swelling had commenced on the right side of the lower jaw and had gradually increased in size, but was not accompanied by any marked pain. During the last 12 months he had noticed that the bones of his nose had been growing larger and that the nose had become markedly increased both in thickness and breadth—the left side rather more than the right; the left nostril had become almost occluded. During the last two months he had suffered at various times from severe neuralgic pains in the lower jaw especially on the left side, the pain extending up the left side of his face almost to the temple. Otherwise he enjoyed good health and was able to follow his usual employment. His family history appeared to be very good. Mr. Stephenson found the whole of the lower jaw thickened and hypertrophied, especially the left half, and on examining the interior of the mouth the broadening and thickening of the alveolar margin were seen to be well marked. The teeth appeared to be somewhat small. The nasal bones were considerably enlarged and the left nostril was almost occluded. The superior maxillæ were slightly enlarged and there was a distinct bulging of the left frontal eminence. All the other bones appeared to be normal except that the patient suffered from slight genu valgum of the right leg. Two portraits which accompany the paper show a man of an intelligent aspect, with regular features free from disfigurement, although the fulness at the angles of the jaw is sufficiently noticeable. Leontiasis ossea was first described by Virchow and subsequently by the late Sir James Paget. It is a hyperostosis distinguished from acromegaly by being confined to the facial or cranial bones.

THE QUESTION OF THE COMMUNION CUP.

IN another column will be found a letter from a correspondent referring to the danger of infection which exists owing to the use of a common chalice at the administration of the Holy Sacrament. The point which our correspondent brings forward is a very real one and one, moreover, which should be taken up by ecclesiastical authorities without delay. We have ourselves commented upon the question on many previous occasions, to give an instance in our issue of Feb. 1st, 1896. There are three methods by which this danger may be avoided, but only two need be seriously considered. These are, one, the Roman Catholic mode of communion of the laity in one kind only, and the other the method of communicating technically known as "intinction"—namely, the bread being dipped in the wine. This latter method is still used in the Eastern Church and was common throughout the West up to the twelfth century. It went through various vicissitudes, being now allowed by one council and now forbidden by another, until at length, with a view of bringing about uniformity, the chalice was forbidden to the laity. The third method, mentioned by our correspondent, of a separate glass or cup for every communicant, is quite modern, has never so far as

we know been adopted by any branch of the Church, and to our minds is open to the charge of introducing complications into a rite which should at every cost be kept dignified, solemn, and reverent in its ritual, however much or little of this last there may be. Into the theological arguments for or against "intinction" or those which led to the supersession of the latter by communion in one kind only we shall not enter, for it is not our province to do so. But we earnestly urge the ecclesiastical authorities of the Church of this land to consider the matter. The Church in former days was a leader in sanitation, witness the way in which the great religious houses drained fens, planted waste places, and taught men the advantage of living a regular life under a disciplined rule. It is none the less her duty now to remove occasions of stumbling.

THE SIGNIFICANCE OF CHANGES IN THE CEREBRAL GANGLION CELLS IN PSYCHOSES.

IN the *Berliner Klinische Wochenschrift*, No. 32, 1900, Dr. E. Meyer gives an account of his studies based on cases at the psychiatric clinic of the University of Tübingen and made with a view to determine the significance of the cortical changes in the cerebral ganglion cells in acute mental diseases. The examination of microscopic specimens prepared by Nissl's and other methods showed interesting changes, the cases studied being one of delirium tremens in a woman aged 41 years, one of septic delirium and typhoid fever with high temperature, two of insanity following renal disease and uræmia, two of delirium associated with the inanition of pulmonary phthisis, one of acute delirium in a young woman aged 22 years, one of delusions of persecution in a woman aged 59 years, one of melancholia terminating in delirium acutum, one of mental confusion passing on to katatonia, and one of hallucinatory delirium occurring at the climacteric period. Many changes especially of a chromatolytic character as regards Nissl's granules were found, affecting especially the large and "giant" pyramidal cells, the extent and distribution of the changes being variable. Cases with septicæmic complications—e.g., multiple abscesses, purulent nephritis, and enteric fever—showed changes similar to those without such complications, though in the latter cases the agency of toxic substances—e.g., alcohol—could not be excluded. Dr. Meyer thinks that not all psychoses are accompanied by change in the ganglion cells, while those changes found to be present are known to occur in entirely different diseases marked by differences of etiology and clinical history, and hence that such changes are not pathognomonic. Many of the cellular changes (chromatolysis, fatty and pigmentary degenerations) are common to several and different psychoses, although the distribution of these changes in the various cortical "areas" may be different.

THE UNIVERSITY OF LONDON.

As we announced in our issue of Oct. 6th was to be the case a meeting of the Convocation of the University of London took place on Oct. 9th for the purpose of electing members to serve on the Senate under the statutes made by the Commissioners. Mr. H. E. Busk, the chairman of Convocation, presided and before the business of the election commenced a motion was adopted expressive of the sympathy of the University with Her Most Gracious Majesty the Queen upon the occasion of the death of the Duke of Saxe-Coburg and Gotha. Polling then commenced and continued for some three hours. Members were elected by the registered graduates in Science, Arts, and Medicine and Surgery respectively. The graduates in medicine elected Dr. Thomas Barlow with 381 votes and Dr. Joseph Frank Payne with 314 votes, as against Dr. Sydney Ringer with 243 votes and Mr. Quarry Silcock with 212 votes. We are sincerely glad at this result, for, as we said last week, Dr. Barlow and Dr. Payne are in accord with the views which we hold upon the question of the establishment of a real teaching university for London, while Dr. Ringer and Mr. Quarry Silcock favour the continuance of the *status quo*. The Faculty of Medicine of the University will this afternoon (Friday), at 4 P.M., hold their first meeting at South Kensington for the purpose of electing three representatives upon the Senate in accordance with the new statutes. The three Senators elected by the Faculty will be *ex-officio* members of the Academic Council, one of the most important standing committees of the Senate in its re-constituted form. With so small a number to elect probably no attempt will be made to choose candidates merely as delegates of particular medical schools, nor does it seem desirable that the Faculty should go outside its own body to find representatives. We understand that the following candidates will be put forward: Dr. J. Kingston Fowler, Dr. E. C. Perry, Dr. H. Montague Murray, Mr. A. A. Bowlby, and Dr. Isambard Owen, and doubtless other names will be submitted to the Faculty. It was at one time thought that at this meeting a Dean of the Faculty would be elected, and Mr. H. T. Butlin's name has been mentioned in connexion with this important post. At the last moment, however, it has been ascertained that the election of dean must be postponed until the new Senate has prescribed the manner of election.

UP to the time of going to press the following medical candidates have been re-elected Members of Parliament:—R. Ambrose, L.R.C.P. & S. Edin. (Mayo West); John Dillon, L.R.C.S. Irel. (Mayo East); R. Farquharson, M.D. Edin. (Aberdeenshire); Sir B. W. Foster, M.D. Erlang., F.R.C.P. Lond. (Derbyshire, Ilkeston); M. A. MacDonnell, M.D. R.U.I. (Queen's Co., Leix); Sir. M. Foster, M.D. Lond., K.C.B. (London University); C. K. D. Tanner, M.D., M.Ch. R.U.I. (Mid Cork); and Sir J. Batty Tuke, M.D. Edin. (Edinburgh and St. Andrews Universities). The following new Member has also been elected:—F. Rutherford Harris, L.R.C.S. Edin. (Monmouth District). Sir R. B. Finlay, the Attorney-General, who was at one time a medical practitioner, has also been re-elected.

THE death is announced as having occurred on Saturday last, Oct. 6th, of Mr. John Frederick France, F.R.C.S. Eng., Mr. France, who retired from the medical profession some years ago, received his medical education at Guy's Hospital, where he was at one time ophthalmic surgeon and lecturer on ophthalmic surgery. He edited "Morgan on Diseases of the Eye." He was a Fellow of the Society of Antiquaries and a justice of the peace for Middlesex.

THE opening meeting of the next session of the Chelsea Clinical Society will be held in the Holy Trinity Parish Hall, Pavilion-road, Sloane-square, on Tuesday, Oct. 16th, at 8.30 P.M. An address will be delivered by the President, Dr. William Ewart, on a Clinical View of some of the Mechanisms of the Heart and its Valves. This meeting will be open to all members of the medical profession on presentation of card.

PROFESSOR B. C. A. WINDLE, Dean of the Medical Faculty of the University of Birmingham, has been nominated by the Council to represent the newly established University on the General Medical Council.

A NEW out-patient department for mental disorders has been opened at Charing-cross Hospital and Dr. Percy Smith has been appointed physician-in-charge. Patients have to attend on Wednesdays at 9.30 A.M.

A FEW WORDS ON THE PUBLIC HEALTH SERVICE.

AT the meeting of the West of England and South Wales Branch of the Incorporated Society of Medical Officers of Health, held in Bristol on Oct. 4th, the presidential address was delivered by Mr. J. Herbert Jones, medical officer of health of the Rhondda urban district. After some preliminary observations on the existing administration of the Public Health Acts in England and Wales, and a disclaimer of any intention to suggest a scheme for reform of the public health service, Mr. H. Jones proceeded to give a *résumé* of the manner in which certain Acts of Parliament akin to the Public Health Acts were carried out, his opinion being that a study of the particular methods adopted in other public departments might be useful to the members of the society. He said:—

"The particular statutory enactments with which I will concern myself are the Factory Acts, the Mines Regulation Acts, and the Education Acts. The first two are administered by the Home Office—a department presided over by the Home Secretary, who is invariably a Cabinet Minister. The Education Acts are administered by local school authorities, but a controlling power is in the hands of the Board of Education—a department represented in Parliament by the Vice-Chairman of the Committee of Council, who does not always occupy a seat in the Cabinet. The practical administration of the Factory and Workshops Acts is in the hands of inspectors who are appointed to promote and enforce the uniform working of the Acts, the provisions of which are concerned with the safety of the workpeople, with the sanitary conditions of the places in which they work, and with the hours during which women and children are employed. There is a chief inspector who is responsible for the working of the department and for the carrying out of the Acts throughout the United Kingdom. He is stationed in London and has his headquarters at the Home Office. Then there are five superintending inspectors to whom are assigned definite 'divisions'; their headquarters are placed in large centres of population, such as London, Glasgow, Manchester, Birmingham, and Leeds. Each superintending inspector has under his supervision district inspectors, to whom are allotted definite areas within the wider division. These latter in large districts have the help of junior inspectors and assistants. There are altogether 47 inspectors attached to districts (15 ranking as first class and 32 as second class) and there are 37 junior inspectors and 31 assistants. In addition to the divisional and district staff the chief inspector has the further assistance of a deputy chief inspector, a medical inspector, an engineering adviser, an inspector of cotton cloth factories (and other factories in which artificial humidity is employed), and a principal lady inspector, under whose immediate direction are six lady inspectors. The inspectors are nominated and appointed by the Home Secretary after examination which is in part competitive in certain subjects. Their salaries are increased periodically up to a fixed maximum. An inspector may be called upon to retire at the age of 60 years and he is compulsorily retired at 65 years, in each case becoming entitled to superannuation. In exceptional circumstances he may be employed for a further term of five years after he has reached the age of 65 years.

The Coal Mines Regulation Acts of 1887 and 1896 contain provisions as to the employment of boys, girls, and women, the payment of wages, the prohibition of single shafts, the division of mines into parts, the appointment and certification of managers, inspection of mines, arbitration in disputes, as to coroners' inquests, the ventilation of mines, and as to general and special rules, &c. The Acts are enforced by officials of the Home Office styled inspectors of mines. Concerned with metalliferous mines alone there are one inspector and two assistant inspectors. For coal and metalliferous mines there are 12 inspectors and 24 assistant inspectors. To each inspector is allotted a district and he has associated with him assistant inspectors who in their turn have charge of a defined area. The time of the inspector is primarily occupied in making inspections either at irregular intervals upon his own initiative, or when asked by some responsible person to do so, or when he receives a complaint of conditions calling for investigation. The inspectors possess extensive powers of entry to the works with which they are concerned and have very large powers enabling them speedily to enforce the provisions of the Mines Acts. They meet in conference in London once a year and oftener if necessary. The expenses of these meetings are defrayed by the Home Office. They are appointed by the Home Secretary and must have submitted themselves to examination in certain subjects relevant to their particular calling. They are paid a gradually increasing salary up to a maximum and are subject to the same regulations as to superannuation and retirement as factory inspectors.

The administration of the Factory and Workshops Acts and of the Mines Regulation Acts is entirely in the hands of the central authority. The Education Acts, on the other hand, more nearly resemble the Public Health Acts in that they are administered by local authorities controlled by a central authority. With the detailed work of the school boards or school committees I will not trouble you, but I will confine myself to the part played by the Board of Education. The duties of the local school authorities are set out in the Education Acts and in a code issued year by year by the Board of Education. The provisions of the code and of the Education Acts are to a certain extent enforced by a large staff of inspectors acting under the Board of Education. There are 12 chief inspectors, one of whom is designated senior chief inspector, and 91 inspectors. Then there is a staff of some 200 sub-inspectors, one-fourth of whom are styled first-class and the remainder second-class sub-inspectors; these are usually drawn from the ranks of those teaching in the public elementary schools. Each of the 12 chief inspectors has allotted to him a division which is again subdivided into smaller areas under the control of an inspector who has associated with him one or more sub-inspectors. The inspector is not subordinate to the chief inspector, but reports to, and receives instructions directly from, the Board of Education. The sub-inspectors, on the other hand, report and take instructions through the inspector. The chief inspectors have periodical conferences with each other, and the chief inspector has conferences with the inspectors in his division in order to secure substantial uniformity of judgment and practice throughout a division. The expenses of these conferences are borne by the Board of Education.

In conclusion, I cannot refrain from asking you to contrast the administration of the Acts of Parliament which I have enumerated with the administration of the Public Health Acts as we know it in many parts of the country. There are, I admit, many towns and districts in which the local authority is alert and has a full sense of its great responsibilities, but this is the exception rather than the rule. Cannot something be done to make the exception the other way?"

THE WAR IN SOUTH AFRICA.

THERE is but little to be chronicled about the military situation in South Africa. As might have been confidently expected, now that the war has reached a final and merely guerilla stage, there have been much desultory fighting and occasional military raids on the part of the Boers. Their resistance as an organised body has been overcome and the back of the campaign is broken, and we are now witnessing the sequelæ of what has gone before. The Royal Commissioners having inspected all the hospitals and finished their work in South Africa, will soon be on their way to this country, where they will examine some more witnesses and complete their investigations. The publication of their report will, we need scarcely say, be awaited with great interest. Army reform will occupy a front seat in the immediate future and with Lord Roberts as the new Commander-in-Chief—especially if supplemented and aided by the organising capacity of Lord Kitchener—the nation may expect to have the subject thoroughly threshed out. We can only trust that the danger will be avoided of perfecting a scheme which, however admirably adapted it may be for fighting the Boers under the exceptional conditions which obtained in the veldt and uplands of South Africa, may be little fitted for campaigns conducted under altogether different systems and conditions and against regularly organised European armies. After all that has been said and done, however, have we ever waged a war under the same difficulties that we have had to encounter in South

Africa or, all things considered, more successfully carried out what we set about to accomplish? There can be no doubt that no better equipped and provisioned army has ever been sent by this or any other country into the field. Its shortcomings were mainly attributable to our having under-rated the magnitude of the task, to the sudden and unexpected way in which war was thrust upon us by the Boer ultimatum, and to our having been brought face to face with new problems and a new experience.

The organisation of, and everything connected with, the Army Medical Service will be cast into the melting-pot and subjected to a fierce fire of criticism and rigorous investigation. We shall then see in what respects it is considered susceptible of being remodelled on new and improved lines. The new Government is pledged to undertake the problems, the settlement of which on a practically satisfactory and workable basis becomes more and more difficult. The adjustment of the scales of military and medical requirements, with a due regard to military efficiency and the demands of modern warfare, on the one hand, and progressive requirements of civilised society and sanitation, on the other, is no easy task. But it has to be faced. This brings us to a consideration of Dr. Leigh Canney's proposals and his letter in THE LANCET of Sept. 29th, p. 969. We may first of all take the opportunity of making a few prefatory remarks, if only to guard against any possible misapprehension of what we are about to say. Dr. Canney has, as a matter of course, our entire sympathy in regard to the objects which he has in view. In all that appertains to the sick and wounded soldier and the prevention of disease in the field we cannot fail to be deeply concerned. We heartily welcome every scheme claiming to introduce improvements in these respects and are always prepared to discuss them with a feeling of prejudice in their favour rather than otherwise. As a general principle we have always held that what is best for the public is best for the profession, even where, as it occasionally happens, the views put forward may seemingly conflict with some real or alleged professional interest. But this does not remove the responsibility of considering every proposal from a practical and from every other point of view before adopting it. Turning then to Dr. Canney's letter, we disclaim all intention of prejudging his proposals; still we may allude to some points which struck us on reading it, and we follow the order he has laid down.

1. The whole public who have been watching their relatives and friends through this anxious struggle, are no doubt immediately concerned, but it would be scarcely possible to submit any proposed remedial measures to the judgment of the public. They must be considered by persons competent to deal with them, and as this war is sure to be followed by an inquiry into everything connected with it and the question of prevention of disease in the field among others, we ventured to suggest that Dr. Canney might very usefully in the public interest take advantage of that opportunity.

2. We wish that we could see how the object of the second paragraph of his letter could be accomplished—viz., to keep the army free from typhoid fever and dysentery from the first day of landing and to discover and to treat suspicious cases. If, as is the case, the mildest cases of typhoid fever are as capable of spreading infection as the gravest this would be a very necessary but a very difficult thing to do. But what about the very lengthened periods of time over which it is alleged the infection may extend in those who have apparently recovered from an attack of typhoid fever? We do not see why dust, during such dust-storms as occur in India, for example, should not be a vehicle of infection (if not direct, through articles of food and fluids—say water), notwithstanding that the fact has not yet been scientifically demonstrated. But be this as it may, we freely admit that the main channel of infection is water and that typhoid fever is a water-borne disease, and that if troops could be supplied with sterilised water from start to finish of a campaign a most desirable end would be accomplished. In the case of forced marches such as were carried out by General French, where weight tells and transport is deficient (which is so commonly the case), we nevertheless see some difficulties in the way of doing it.

3. It would, we fear, be simply impossible to be assured of what Dr. Canney demands of medical officers in India; nothing short of an experiment conducted with scientific accuracy would suffice to guard every channel of infection. This paragraph appears to us to conflict somewhat with a previous one.

4. This is a matter of opinion and experience. All we can say is that the experience of officers in a campaign has not always been of the same fortunate character.

5. We do not know whether this would, or would not, be practicable under all the conditions of war. Certainly the transport of a "water corps" should be held sacred, but whether all the mules for carrying the boiling machines would be always forthcoming and could accompany and keep pace with the troops under all circumstances is another matter.

In conclusion, we wish to say that although we have criticised some of his proposals we consider that Dr. Canney has been at the trouble to work out a scheme for which he deserves, in our opinion, great credit, and it should receive (as it no doubt will) all the consideration which it merits when the time comes for inquiring into these and other matters connected with the South African War.

THE PLAGUE.

No fresh cases of plague have occurred in Glasgow since the date of our last issue, but the man who was admitted to the Belvidere Hospital from Govan on Sept. 20th died from plague on Oct. 7th.

Dr. A. K. Chalmers has forwarded to us some clinical notes of patients who were reasonably suspected of being affected by plague. We subjoin the notes of two of the most interesting cases.

1. A man sickened on Sept. 27th with shivering and headache, which were followed on the 28th by pain in the right axilla. On examination on Oct. 2nd and 3rd there was a a general thickening in this situation, which was tender on pressure, although definite glandular enlargement in the axilla could not be discovered. In the left axilla, however, several glands were enlarged, but were not tender on pressure. He was removed to hospital for observation and in the course of the following day an abscess of a distinctly septic character appeared in the right axilla.

2. On Oct. 6th a boy was notified as suffering from "fever, probably typhus," and on the house being visited it was learned that he had died on the previous evening. A history of illness beginning suddenly in the midst of apparently perfect health and accompanied by vomiting and high fever with rapidly increasing prostration and death within 24 hours, aroused suspicion which was strengthened by an external examination of the body and the discovery of a chain of enlarged cervical glands in both sides of the neck and in the left axilla. The body was in consequence removed to the mortuary at Belvidere Hospital and with the father's consent a post-mortem examination was there made. This revealed a tonsillar abscess, with a widely distributed glandular enlargement, all pointing to an extreme degree of susceptibility towards septic poisoning to which the death can be attributed. Evidence of plague was entirely absent.

Professor Zabolotny of the Imperial Institute of Experimental Medicine, St. Petersburg, who in recent years was a member of the Russian expedition for the study of plague in India, Arabia, and Eastern Mongolia, and who spent several weeks in this country on behalf of his Government, has left Glasgow. His conclusions regarding the Glasgow out-break are here reproduced.

1. The epidemic in Glasgow, when compared with that of India, China, and Africa, and with those in Europe of recent years (Oporto, Kolobowka), is of the most mild description.

2. The extension of the epidemic is not great and the mortality is quite insignificant, which may be attributed to the medical and sanitary measures which have been practised with so great energy in Glasgow.

3. For the most part one meets with bubonic cases which are less dangerous from the point of view of epidemiology than the pneumonic forms. These latter are excessively contagious, because the sputum of the sick person teems with plague bacilli.

4. Since in the bubonic form the sickness does not spread except by contact with the skin, the measures of isolation and cleansing of linen and clothing play a most important rôle in prevention.

5. For persons in contact with the sick the best method of protecting them is by preventive injection with serum (from 10 to 20 cubic centimetres) as is practised in Glasgow.

6. Treatment of the patients is most effective when the serum is injected in large doses (from 60 to 120 cubic centimetres) intravenously.

7. The post-mortem examinations of fatal cases have presented a picture of protracted illness (suppuration, *nodules pesteuse*, mixed infection) and not that of an acute malady terminating fatally in from two to three days.

A fatal case of plague occurred at Cardiff on Oct. 4th. The patient was one of the crew of the ship *Southgarth* voyaging from the River Plate to the Tyne. On the way home one member of the crew was put ashore at King's Lynn suffering from typhoid fever—a diagnosis which was made by the medical man who first saw the patient and was subsequently confirmed by the medical officer of health. Another member of the crew who arrived with the ship in the Tyne landed at South Shields on Sept. 22nd. On Sept. 21st he was taken ill. On the 24th he went to North Shields and Newcastle, and from there to his home at Llandaff, where he arrived on the 27th. Here his illness was at first supposed to be typhoid fever, but it was eventually suspected to be plague—a diagnosis which was provisionally confirmed by bacteriological examination of the blood and cultures from the bubo. He was removed to the Cardiff Fever Hospital, where he was isolated and where he died on Oct. 4th. An absolute diagnosis was made from the result of the post-mortem examination and by inoculation of a guinea-pig, a diagnosis which was confirmed by Dr. Klein. By consent of the widow the body of the man was cremated on Flatholm Island. In view of these events the member of the crew of the *Southgarth* who was landed at King's Lynn is being carefully watched. The port medical officer of health, writing on Oct 10th, informs us that the patient is suffering from typhoid fever but is now nearly convalescent. The Local Government Board have issued a "Plague Memorandum" to which we refer in our leading columns.

In view of the possible appearance of the plague in London the Public Health Committee of the London County Council met on Sept. 26th and drew up a report which was confirmed by the Council on Oct. 9th. The salient points of this report are as follows. After referring to a communication which had been received from the Local Government Board asking among other things what accommodation the Council could provide for isolating "contacts" the Committee go on to say:—

> We have given careful consideration to the Board's letter and we think it very desirable in the interests of efficiency and economy in administration that the Council should undertake the duty indicated by the Board and should provide the whole of the accommodation required rather than that the duty should be divided among a number of local sanitary authorities. The Council has in its possession a number of properties acquired under various improvement or other schemes some of which could at a few hours' notice be rendered fit for occupation, while the repairs necessary at the others would not take more than a few days. Having regard to the urgency of the matter we have informed the Local Government Board that the Council is prepared to undertake the duty indicated in the Board's letter, and we have sent to the Board a list showing the premises in the Council's possession which could be adapted for the purpose and the time which it would take to render them fit for occupation. We have also stated that, in addition to the premises mentioned in the list, the Council has other buildings which could in case of great emergency be adapted as isolation homes, and that should these eventually prove inadequate the Council would provide or obtain any further accommodation that might be necessary.
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> We have instructed the valuer, as soon as the Board intimate their acceptance of the Council's offer, to have one of the properties made ready for habitation and the necessary furniture stored therein, to repair two or three of the other properties, and generally to complete lists of furniture, provisional arrangements with contractors, arrangements as to diet, &c., so that the demand for accommodation may be kept pace with should plague appear in London.
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> We have informed the various committees of the Council which have charge of the properties above referred to, of their proposed use in case of necessity as isolation homes, in which the inmates would be under the daily supervision of the Council's medical officers. Of course the actual cases of plague would be sent to the hospitals of the Metropolitan Asylums Board, while the medical inspection of infected areas and disinfection of premises and articles after cases of plague would no doubt be undertaken by the sanitary authorities.
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> On Sept. 19th the Local Government Board issued an order requiring the immediate notification of all cases of plague to the sanitary authorities and to themselves. This order applies throughout England and Wales. Under our instructions the medical officer has sent a circular letter to the various medical officers of health in London inviting them to give him immediate notice of cases or suspected cases of plague, with a view to these cases being inquired into by a medical man familiar with the disease, and also with a view to material, if necessary, being sent for bacteriological examination at the cost of the Council. Mr. James Cantlie, M.B., F.R.C.S., formerly medical officer in one of the plague hospitals in Hong Kong, has had large experience of the disease, and we have retained him to examine and report upon any suspected cases of plague in London in which there is any doubt as to the diagnosis, and to make post-mortem examinations when necessary. An arrangement has also been made with Dr. Klein for the bacteriological examination of material from suspected cases.
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> During the recess the medical officer, under the authority of our chairman, asked Mr. Cantlie to prepare a memorandum giving an account of the clinical characteristics of plague, and we have given instructions for a printed copy of this memorandum to be sent to each medical practitioner in London.
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> The Council may like to know that in 1898, certain cases of plague having occurred among the members of a ship's company in the Albert Docks, the medical officer caused inquiry to be made by the Council's inspectors in all common lodging-houses, shelters, and seamen's lodging-houses in sanitary districts in the eastern half of London on both sides of the Thames for cases of sickness which might possibly prove to be plague, and all cases of sickness of a doubtful nature were inquired into by one of the Council's medical officers. In July of this year this inquiry was repeated, and it was again repeated in the middle of September. No single case can be found that raises suspicion of plague. All the premises referred to are now being periodically visited for the same purpose, the seamen's lodging-houses being inspected twice a week.
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> The precautionary measures adopted have not so far entailed much expenditure, but if plague should become prevalent in London—which we hope will not be the case—of course the Council may have to incur considerable expense for the repair and furnishing of premises as isolation homes and for the food of persons sent to these homes. We propose at our next meeting to consider the question of expenditure and to submit an estimate to the Finance Committee.

LUNACY IN IRELAND.

IN the Forty-ninth Annual Report of the Inspectors of Lunatics (Ireland), just published, the number of the insane in the various institutions in Ireland on Jan. 1st, 1900, was 20,863, as compared with 20,304 patients on Jan. 1st, 1899, or a total increase of 559 patients during the year. The increase has taken place entirely in the district asylums, a decrease being noted in private asylums and workhouses. The increase during 1899 was less than that for the preceding year, which reached the exceptional figure of 714 but was greater than the average increase for the previous 10 years—viz., 475. No provision exists in Ireland by which any returns can be obtained of pauper lunatics wandering at large or residing with relatives except through the decennial census. The number of patients discharged as recovered during the year was 1338 (745 men and 593 women), an increase of 59 over that of the previous year, or 8·5 per cent. of the total average number resident. The number of deaths during the year amounted to 1132, of whom 631 were males and 501 were females. This number exceeded by 27 the mortality of the preceding year and showed a percentage of 7·2 on the average number resident during the year—that for the preceding year being 7·4. One of the deaths was by suicide and four resulted from misadventure. In 311 cases the cause of death was verified by post-mortem examination, as against 298 for the previous year. The causes of death vary in different localities and are affected by the position of the district from which the patients are received, whether urban or rural, as well as the other manifold conditions which influence the general health, such, for instance, as whether the district is poor or comparatively prosperous. In some instances the causes appear to affect the patients after admission, such as overcrowding. "It is not difficult to understand how such a disease as consumption, which is so common a cause of death in the general population, should be a potent factor in the mortality of asylums; but it is not so easy to explain how other diseases, such as dysentery, not so commonly met with in the outside community, should be found as the cause of death in certain asylums." The number of deaths in district asylums during the year was 1132 and the deaths from general paralysis of the insane amounted to 50, thus showing the progress of this disease amongst the urban population of Ireland. The deaths from consumption amounted to 321, or 28·4 per cent. of the total number. In the Richmond District Asylum the mortality from phthisis was 36·5 per cent., in Cork it was 37 per cent., in Limerick it was 39 per cent., and in Ennis Asylum it was 60 per cent. General paralysis was returned as the cause of 9·7 per cent. of deaths in Waterford Asylum, and 10·6 per cent. in Downpatrick, 13·5 per cent. in Richmond, and 15·7 per cent. in Belfast Asylums. The expenditure incurred in maintaining an average number of

15,785 lunatics in district asylums was £386,306. To meet this expenditure a sum of £211,902 10*s.* was paid out of the local rates (in pursuance of the 58th section of the Local Government Act of 1898), £153,467 5*s.* was received by way of Government capitation grant, and £7342 12*s.* was contributed by the relatives of patients. The average cost per head for all district asylums was £33 9*s.* 8*d.* per annum, or 9*s.* 5*d.* per head per week.

LEICESTER NEW ISOLATION HOSPITAL.

THE formal opening of the Leicester New Isolation Hospital, the ultimate cost of which will be nearly £60,000, took place on Sept. 28th. There is still a good deal of work to do before the buildings leave the contractors' hands, but when finished it is believed that Leicester will possess the finest equipped and most up-to-date institution of the kind in the United Kingdom. The Sanitary Committee promoted a competition for the best design, and Messrs. Blackwell and Thomson, architects, of Leicester, gained the first award, and from these designs the hospital has been built. The site comprises about 14 acres. The hospital proper consists of four separate one-storey pavilions for the treatment of scarlet fever, giving accommodation for 26 beds each; a similar pavilion for typhoid fever containing 28 beds; two isolation pavilions—one a two-storey building—containing 28 beds, giving a total accommodation for 160 adult patients. The buildings have been so arranged that two additional scarlet fever pavilions can be easily added and also one additional isolation pavilion. It is suggested that the separate rooms in the isolation blocks can be conveniently used for typhoid fever patients should occasion arise, hence an additional typhoid fever block is not projected. The other buildings comprise the administration block, discharging block, and mortuary. The total number of beds if the full extension were carried out would be 240. The several buildings are connected by macadam roads without covered ways, the ambulance vans thus being able to drive up to the door of each block. The site has an average elevation of about 280 feet above ordnance datum. The four scarlet fever pavilions are all arranged alike and consist of two main wards, 72 feet long and 26 feet wide, to contain 12 beds each. In the central portion is provided a separation or observation ward of two beds. The nurses' kitchen is centrally placed and can overlook the beds in the two main wards by means of observation windows. At the end of each main ward is placed on one side the sanitary tower containing the water-closets, slop and scalding sinks, which are disconnected by a ventilated lobby, and on the other side the bath-room, containing two baths and two lavatories. The baths are of porcelain with the latest kind of fittings. In connexion with the waste water from the bath-room an ingenious contrivance has been adopted for cleansing the drains—viz., an automatic flushing-tank, situated at the upper end of each pavilion. The typhoid fever pavilion is very similar to the scarlet fever pavilions with the exception that there are two separate wards instead of one. The one-storey isolation hospital is based on the lines of the Local Government Board's suggestion and provides for a total of 12 beds.

The administration block contains on the right of the front main entrance: committee-room, resident medical officer's sitting-room, lavatory, &c., dispensary, laboratory store, waiting-room, and telephone inclosure; and on the left of the entrance matron's sitting-room, office, nurses' mess-room, sitting-room, sewing-room, household linen-room, dry-goods store, lavatory, and servants' hall. The main corridor is seven feet wide. At the west end of the administration block and at right angles to the main corridor is another corridor out of which lead the kitchen and stores. It is proposed to do most of the cooking by gas and by steam. The floors of the corridors, kitchens, &c., are of terazzio, an Italian process by which small pieces of marble are mixed with concrete and a smooth surface is obtained. The first floor contains the nurses' and matron's bedrooms, with bath-rooms, water-closets, and linen store. The medical officer's bedroom and bath-room are also on this floor and are approached by a separate staircase. 20 bedrooms for nurses are provided on this floor. The second floor contains 10 bedrooms for servants, a bath-room, &c. The front elevation of the administration block is a neat example of eighteenth century English work. There is nothing in the shape of ornamentation, but in the face of the wall over the portico the name and date of the erection of the hospital are set out in stucco. The porter's lodge is situated on the right-hand side of the main entrance and stands 15 feet back. At the rear of the porter's lodge is the discharging block, arranged in duplicate for male and female patients. The discharged patients will enter the building at one end in hospital garments, will undress and bathe, and will leave by an opposite door, a waiting-room being provided for their friends who come to meet them. The mortuary consists of a post-mortem room, mortuary, and viewing chamber.

The hospital is heated by low-pressure steam, with auxiliary stoves and grates. Ventilating radiators are placed in the wards under some of the windows and extraction flues are built in the outside walls for carrying away the vitiated air of the wards. The foul drains from the scarlet fever pavilions, the typhoid fever pavilion, the isolation block, and the administration block are kept quite distinct and are properly disconnected at a manhole before entering the ejector house. The sewage is then pumped up into one of the main carriers on the sewage farm by means of a Shone ejector apparatus. There is telephonic communication between all the buildings and the hospital is lighted by electricity throughout. The laundry is fitted with the most modern requisites, the drying chambers being heated with hot air. The laundry is also provided with a large steam disinfector.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6087 births and 3964 deaths were registered during the week ending Oct. 6th. The annual rate of mortality in these towns, which had been 18·1 and 18·5 per 1000 in the two preceding weeks, declined again to 17·8 last week. In London the death-rate was 15·8 per 1000, while it averaged 19·1 in the 32 provincial towns. The lowest death-rates in these towns were 8·7 in Croydon, 13·8 in Nottingham, 14·2 in Cardiff, and 14·3 in Brighton; the highest rates were 24·1 in Norwich, 24·8 in Salford, 25·1 in Sunderland, and 26·0 in Manchester. The 3964 deaths in these towns included 673 which were referred to the principal zymotic diseases, against 771 and 776 in the two preceding weeks; of these 406 resulted from diarrhœa, 92 from diphtheria, 66 from "fever" (principally enteric), 49 from whooping-cough, 32 from scarlet fever, and 28 from measles. The lowest death-rates last week from these diseases occurred in Croydon, Plymouth, Cardiff, Halifax, and Bradford; and the highest rates in Norwich, Leicester, Burnley, Sheffield, Sunderland, and Gateshead. The greatest mortality from measles occurred in Swansea, Huddersfield, and Newcastle; from whooping-cough in Preston and Gateshead; from "fever" in Portsmouth, Swansea, Sheffield, and Sunderland; and from diarrhœa in Norwich, Burnley, Sunderland, and Gateshead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 92 deaths from diphtheria included 29 in London, 11 in Leicester, nine in Leeds, seven in Liverpool, and seven in Sheffield. No fatal case of small-pox was registered last week in any of the 33 towns; and only one small-pox patient remained under treatment in the Metropolitan Asylums Hospitals on Saturday last, Oct. 6th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2071, against numbers increasing from 1703 to 1938 on the five preceding Saturdays; 313 new cases were admitted during the week, against 243, 269, and 318 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 203 and 187 in the two preceding weeks, further declined last week to 164 and were 53 below the corrected average. The causes of 45, or 1·1 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Salford, Bradford, and in 11 other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Liverpool, Manchester, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns,

which had been 18·9 per 1000 in each of the three preceding weeks, rose to 19·3 per 1000 during the week ending Oct. 6th, and was 1·5 per 1000 above the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·5 in Perth and 15·3 in Paisley to 21·2 in Aberdeen and 23·2 in Greenock. The 595 deaths in these towns included 53 which were referred to diarrhœa, 18 to whooping-cough, 13 to "fever," 10 to measles, seven to scarlet fever, five to diphtheria, and one to small-pox. In all, 107 deaths resulted from these principal zymotic diseases, against 112 and 91 in the two preceding weeks. These 107 deaths were equal to an annual rate of 3·5 per 1000, which was 0·5 above the mean rate last week from the same diseases in the 33 large English towns. The deaths from diarrhœa, which had been 62 and 49 in the two preceding weeks, rose again last week to 53, of which 26 occurred in Glasgow, 10 in Dundee, six in Edinburgh, five in Paisley, and four in Aberdeen. The fatal cases of whooping-cough, which had declined from 25 to 12 in the five preceding weeks, rose again to 18 last week, and included nine in Greenock, seven in Glasgow, and two in Edinburgh. The deaths referred to different forms of "fever," which had increased from four to 12 in the four preceding weeks, further rose last week to 13, of which 11 (including one fatal case of bubonic plague), were registered in Glasgow and two in Dundee. The deaths from measles, which had been five in each of the two preceding weeks, increased to 10 last week, and included six in Glasgow and three in Edinburgh. The fatal cases of scarlet fever, which had been four and six in the two preceding weeks, further rose last week to seven, of which five occurred in Glasgow. The five deaths from diphtheria showed a decline from recent weekly numbers and included three in Edinburgh and two in Glasgow, where the fatal case of small pox was also registered. The deaths referred to diseases of the respiratory organs in these towns, which had been 101 and 100 in the two preceding weeks, decreased to 98 last week, but were 27 above the number in the corresponding period of last year. The causes of 27, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·5 per 1000 in each of the two preceding weeks, rose to 26·0 during the week ending Oct. 6th. During the past four weeks the death-rate in the city has averaged 25·0 per 1000, the rate during the same period being 16·4 in London and 18·7 in Edinburgh. The 174 deaths belonging to Dublin registered during the week under notice showed an excess of 10 over the number in the preceding week, and included 36 which were referred to the principal zymotic diseases, against 31 and 25 in the two preceding weeks; of these 27 resulted from diarrhœa, five from whooping-cough, three from "fever," and one from measles. These 36 deaths were equal to an annual rate of 5·4 per 1000, the zymotic death-rate during the same period being 2·2 in London and 2·4 in Edinburgh. The fatal cases of diarrhœa, which had declined from 27 to 18 in the three preceding weeks, rose again to 27 last week. The deaths from whooping-cough, which had been three in each of the two preceding weeks, increased last week to five. The fatal cases of "fever," which had been seven, three, and four in the three preceding weeks, declined again to three last week. The 174 deaths in Dublin last week included 66 of infants under one year of age and 28 of persons aged upwards of 60 years; the deaths of infants considerably exceeded the number in the preceding week, while those of elderly persons showed a slight decline. Eight inquest cases and seven deaths from violence were registered, and 54, or nearly a third, of the deaths occurred in public institutions. The causes of 16, or more than 9 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1900.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in each of the 43 sanitary areas of London. With regard to the notified cases of infectious diseases it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 8·7 per 1000 of the population, estimated at 4,589,129 persons in the middle of the year. In the three preceding months the rates had been 6·9, 7·0 and 6·0 per 1000 respectively. The rates were considerably below the average in Paddington, St George Hanover-square, St. James Westminster, St. Martin-in-the-Fields, Strand, and Woolwich; while they showed the largest excess in Fulham, St. George-in-the-East, St. Saviour Southwark, St. George Southwark, Rotherhithe, and Lee sanitary areas. One small-pox case was notified during September, and was that of a person belonging to Wandsworth sanitary area; one small-pox patient was admitted into the Metropolitan Asylums Hospitals during the month, and two remained under treatment on Saturday, Sept. 29th. The prevalence of scarlet fever showed a marked increase over that recorded in the preceding month; among the various sanitary areas this disease was proportionally most prevalent in Hammersmith, St. Giles, St. Saviour Southwark, St. George Southwark, Lee, and Plumstead. The Metropolitan Asylums Hospitals contained 1899 scarlet fever patients at the end of September, against 1788, 1804, and 1657 at the end of the three preceding months; the weekly admissions averaged 255, against 202, 210, and 152 in the three preceding months. The prevalence of diphtheria showed a considerable increase over that recorded in the preceding month; the greatest proportional prevalence of this disease occurred in Fulham, Mile End Old Town, Poplar, Newington, Bermondsey, and Lee sanitary areas. There were 1231 diphtheria patients in the Metropolitan Asylums Hospitals at the end of September, against 1212, 1256, and 1171 at the end of the three preceding months; the weekly admissions averaged 185, against 151, 183, and 142 in the three preceding months. The prevalence of enteric fever was considerably in excess of that recorded in recent months; among the various sanitary areas this disease was proportionally most prevalent in Chelsea, St. George-in-the-East, St. Saviour Southwark, St. George Southwark, Bermondsey, and Rotherhithe. The Metropolitan Asylums Hospitals contained 329 enteric fever patients at the end of September, against 148, 129, and 170 at the end of the three preceding months; the weekly admissions averaged 69, against 21, 20, and 32 in the three preceding months. Erysipelas was proportionally most prevalent in St. Giles, St. Luke, Whitechapel, St. George-in-the-East, Mile End Old Town, and St. Olave Southwark sanitary areas. The 15 cases of puerperal fever included three in St. Pancras, three in Battersea, and two in Greenwich sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the public institutions of London having been distributed among the sanitary areas in which the patients had previously resided. During the four weeks ending Sept. 29th the deaths of 5793 persons belonging to London were registered, equal to an annual rate of 16·5 per 1000, against 14·8, 15·7, and 19·4 per 1000 in the three preceding months. The lowest death-rates last month in the various sanitary areas were 9·1 in Stoke Newington, 9·5 in St. George Hanover-square, 9·9 in St. Martin-in-the-Fields, 10·0 in Hampstead, 12·0 in Paddington, and 12·2 in Kensington; the highest rates were 21·9 in Clerkenwell, 22·8 in Bermondsey and in Rotherhithe, 23·0 in Poplar, 24·8 in Woolwich, 25·0 in St. George Southwark, and 27·7 in St. George-in-the-East. During the four weeks of September 1078 deaths were referred to the principal zymotic diseases in London; of these, 61 resulted from measles, 15 from scarlet fever, 105 from diphtheria, 163 from whooping-cough, 64 from enteric fever, and 670 from diarrhœa. No death from any of these diseases occurred last month in St. Martin-in-the-Fields; in the other sanitary areas they caused the lowest death-rates in Paddington, Kensington, St. George Hanover-square, Strand, City of London, and St. Olave Southwark; and the highest rates in Fulham, St. George-in-the-East, Poplar, St. George Southwark, Bermondsey, and Woolwich. The 61 deaths from measles were 16 below the average number in the corresponding periods of the ten preceding years; this disease was proportionally most fatal in Clerkenwell, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, and St. George Southwark sanitary areas. The 15 fatal cases of scarlet fever were only one-fifth of the corrected average number; the greatest proportional mortality from this disease occurred in Fulham, Holborn, Clerkenwell, Whitechapel, Limehouse, and St. George Southwark. The 105 deaths from diphtheria showed a decline of 75 from

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING SEPTEMBER, 1900.

(Specially compiled for THE LANCET.)

Sanitary Areas.	Estimated population in the middle of 1900.	Notified Cases of Infectious Disease.											Deaths from Principal Infectious Diseases.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON...	4,589,129	1	1236	959	1	496	8	15	349	3	3068	8·7	—	61	15	105	163	—	64	—	670	1078	3·1	5793	16·5	196
West Districts.																										
Paddington	130,104	—	21	7	—	5	—	—	6	—	39	3·9	—	—	—	2	2	—	—	—	10	14	1·4	120	12·0	138
Kensington	173,603	—	29	24	—	11	1	—	7	—	72	5·4	—	1	—	—	3	—	2	—	13	19	1·4	162	12·2	228
Hammersmith	110,203	—	46	22	—	5	—	1	10	—	84	9·9	—	3	1	4	—	—	—	—	16	24	2·8	152	18·0	221
Fulham	136,383	—	44	57	—	15	—	—	10	—	126	12·0	—	1	2	7	8	—	1	—	28	47	4·5	169	16·2	193
Chelsea	96,715	—	24	23	1	22	2	—	7	1	80	10·8	—	—	1	2	—	—	4	—	13	20	2·7	116	15·6	194
St. George Hanover-square	81,133	—	6	4	—	5	—	—	2	—	17	2·7	—	—	—	—	2	—	—	—	3	5	0·8	59	9·5	95
Westminster	51,657	—	12	4	—	3	—	—	2	—	21	5·3	—	1	—	—	2	—	1	—	6	10	2·5	79	19·9	253
St. James Westminster	21,457	—	4	1	—	—	—	—	3	—	8	4·9	—	—	—	—	1	—	—	—	2	3	1·8	26	15·8	152
North Districts.																										
Marylebone	139,777	—	31	23	—	3	—	1	15	—	73	6·8	—	1	—	5	6	—	1	—	18	31	2·9	170	15·9	126
Hampstead	81,766	—	22	12	—	3	—	—	7	—	44	7·0	—	—	—	6	—	—	—	—	5	11	1·8	63	10·0	103
St. Pancras	245,551	—	74	63	—	19	—	3	20	—	179	9·5	—	2	—	9	11	—	4	—	33	59	3·1	301	16·0	186
Islington	351,541	—	89	62	—	31	—	1	18	—	201	7·5	—	1	1	6	12	—	3	—	42	65	2·4	348	12·9	162
Stoke Newington	35,718	—	9	8	—	2	—	—	1	—	20	7·3	—	—	—	—	—	—	—	—	5	5	1·8	25	9·1	119
Hackney	225,519	—	55	54	—	23	—	—	13	—	145	8·4	—	2	—	—	2	—	5	—	35	44	2·5	256	14·8	200
Central Districts.																										
St. Giles	36,870	—	16	6	—	1	—	—	7	—	30	10·6	—	1	—	—	2	—	—	—	3	6	2·1	52	18·4	226
St. Martin-in-the-Fields	11,885	—	2	—	—	1	—	—	—	—	3	3·3	—	—	—	—	—	—	—	—	—	—	—	9	9·9	83
Strand	22,748	—	2	1	—	2	1	—	—	—	6	3·4	—	—	—	—	—	—	—	—	1	1	0·6	25	14·3	214
Holborn	29,188	—	15	—	—	1	—	—	2	—	18	8·0	—	—	1	1	—	—	—	—	2	4	1·8	28	12·5	160
Clerkenwell	66,007	—	12	9	—	5	1	—	6	—	33	6·5	—	2	1	—	2	—	—	—	9	14	2·8	111	21·9	250
St. Luke	40,655	—	13	6	—	1	—	—	9	—	29	9·3	—	—	—	1	—	—	—	—	9	10	3·2	63	20·2	134
City of London	26,922	—	10	8	—	2	—	—	1	—	21	10·2	—	—	—	—	—	—	1	—	1	2	1·0	37	17·9	222
East Districts.																										
Shoreditch	120,641	—	32	21	—	6	—	—	13	—	72	7·8	—	—	—	3	1	—	1	—	16	21	2·3	156	16·9	205
Bethnal Green	128,831	—	39	30	—	13	—	—	16	—	98	9·9	—	7	1	6	6	—	1	—	20	41	4·1	196	19·8	168
Whitechapel	82,220	—	25	14	—	3	—	—	14	—	56	8·9	—	1	1	1	2	—	—	—	10	15	2·4	109	17·3	229
St. George-in-the-East	48,875	—	10	13	—	12	—	—	13	—	48	12·8	—	3	—	2	5	—	2	—	7	19	5·1	104	27·7	241
Limehouse	56,944	—	17	16	—	9	—	1	7	—	50	11·1	—	6	1	2	2	—	1	—	7	19	4·2	96	21·2	216
Mile End Old Town	113,781	—	24	36	—	14	—	—	17	—	91	10·4	—	3	—	4	—	—	1	—	15	23	2·6	160	18·3	152
Poplar	170,968	—	46	66	—	19	—	—	11	—	142	10·8	—	7	—	13	3	—	7	—	35	65	5·0	301	23·0	254
South Districts.																										
St. Saviour Southwark	23,854	—	10	3	—	5	—	—	3	—	21	11·5	—	1	—	—	1	—	—	—	5	7	3·8	36	19·7	145
St. George Southwark	60,597	—	33	17	—	79	—	1	3	—	133	28·6	—	2	1	2	6	—	—	—	18	29	6·2	116	25·0	244
Newington	125,138	—	30	39	—	11	—	—	10	—	90	9·4	—	1	—	3	7	—	3	—	20	34	3·5	204	21·3	204
St. Olave Southwark	10,909	—	3	—	—	1	—	—	2	—	6	7·2	—	—	—	—	—	—	—	—	1	1	1·2	11	13·1	206
Bermondsey	85,920	—	16	28	—	19	—	—	4	—	66	10·0	—	1	—	4	3	—	6	—	23	37	5·6	150	22·8	242
Rotherhithe	41,246	—	15	8	—	13	—	1	4	—	41	13·0	—	1	—	2	1	—	2	—	7	13	4·1	72	22·8	277
Lambeth	312,152	—	80	64	—	52	2	—	14	2	214	8·9	—	4	—	5	8	—	5	—	41	63	2·6	403	16·8	188
Battersea	178,100	—	58	27	—	16	—	3	13	—	117	8·6	—	—	—	—	12	—	1	—	29	42	3·1	197	14·4	207
Wandsworth	217,004	1	57	22	—	20	—	1	9	—	110	6·6	—	1	1	2	8	—	2	—	25	39	2·3	205	12·3	177
Camberwell	268,457	—	72	63	—	12	—	—	16	—	163	7·9	—	—	2	4	25	—	4	—	48	83	4·0	332	16·1	227
Greenwich	184,582	—	50	35	—	20	1	2	20	—	128	9·0	—	3	1	3	12	—	1	—	31	51	3·6	260	18·4	218
Lewisham (excluding Penge)	93,548	—	31	23	—	5	—	—	3	—	62	8·6	—	2	—	—	4	—	4	—	22	32	4·5	112	15·6	215
Woolwich	41,600	—	5	4	—	2	—	—	3	—	14	4·4	—	1	—	1	1	—	—	—	17	20	6·3	79	24·8	321
Lee	40,722	—	18	19	—	1	—	—	1	—	39	12·5	—	1	—	1	—	—	—	—	6	8	2·6	55	17·6	275
Plumstead	65,558	—	29	13	—	1	—	—	7	—	50	9·9	—	1	—	4	3	—	1	—	13	22	4·4	68	13·5	133
Port of London	—	—	1	4	—	3	—	—	—	—	8	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—

* Including 13 cases of membranous croup.

† Including deaths from membranous croup.

the average number in the corresponding periods of the ten preceding years; among the various sanitary areas this disease was proportionally most fatal in Fulham, Hampstead, Bethnal Green, Poplar, Rotherhithe, and Plumstead. The 163 fatal cases of whooping-cough were 45 in excess of the corrected average; this disease showed the highest proportional fatality in Fulham, St. George-in-the-East, St. George Southwark, Newington, Camberwell, and Greenwich sanitary areas. The 64 deaths referred to enteric fever almost corresponded with the average number; among the various sanitary areas the death-rate from this disease was highest in Chelsea, St. George-in-the-East, Poplar, Bermondsny, Rotherhithe, and Lewisham (excluding Penge). The 670 deaths from diarrhœa were 153 in excess of the corrected average; this disease was proportionally most fatal in St. Luke, St. George Southwark, St. Saviour Southwark, Bermondsey, Lewisham, and Woolwich sanitary areas. In conclusion, it may be stated that the aggregate mortality from these principal zymotic diseases in London during September was nearly 5 per cent. above the average.

Infant mortality in London last month, measured by the proportion of deaths of children under one year of age to registered births, was equal to 196 per 1000. The lowest rates of infant mortality were recorded in St. George Hanover-square, Marylebone, Hampstead, Stoke Newington, St. Martin-in-the-Fields, and Plumstead; and the highest rates in Westminster, Clerkenwell, Poplar, Rotherhithe, Woolwich, and Lee sanitary areas.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon E. H. Williams is placed on the retired list. Staff Surgeons J. J. Dinnis and G. F. Wales to be Fleet Surgeons.

ROYAL ARMY MEDICAL CORPS.

Major A. E. Morris is granted 90 days' privilege leave from India to Australia.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Harry Munyard Brownfield, 3rd Volunteer Battalion the Hampshire Regiment, to be Surgeon-Lieutenant. Surgeon-Lieutenant James Steel Swain, 2nd Tower Hamlets Volunteer Rifle Corps, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the East Yorkshire Regiment: Samuel Harvard Johnson to be Surgeon-Lieutenant. 4th (Perthshire) Volunteer Battalion the Black Watch (Royal Highlanders): William Haig to be Surgeon-Lieutenant. 2nd Volunteer Battalion the Essex Regiment: John Elsdale Molson to be Surgeon-Lieutenant. 1st (Cumberland) Volunteer Battalion the Border Regiment: Surgeon-Lieutenant S. Maclean resigns his commission. 4th London: Frederick James Purcell Daly to be Surgeon-Lieutenant.

TRANSVAAL WAR NOTES.

Civil Surgeon Barras and Civil Surgeon McKitchen are returning to England in the *Buluwayo*, which also has on board among the sick and wounded Civil Surgeon Miller.

TRANSVAAL WAR CASUALTIES.

Lieutenant L. E. L. Parker, R.A.M.C., is reported to have received a slight gunshot wound in the right hand.

MENTIONED IN DESPATCHES.

The despatches from Admiral Seymour relative to the recent attempted relief of Pekin contain the following paragraphs:—"Fleet Surgeon Thomas M. Sibbald, H.M.S. *Centurion*, has had charge of the hospital arrangements throughout, and has also been much under fire. His activity, attention, and constant cheerfulness have gone far to mitigate the sufferings of the wounded and have met with my entire approval."

"Surgeon J. Falconer Hall of H.M.S. *Barfleur*, whose devoted care and attention to his patients (as well as his professional skill) during a most trying time have been the admiration of all."

THE NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on Oct. 9th, Sir J. N. Dick, K.C.B., being in the chair, the sum of £28 was distributed among the several applicants.

The *Army and Navy Gazette* of Oct. 6th says: "It will interest Mr. Burdett-Coutts and others, no doubt, to learn that in China every attempt is being made to provide for all contingencies, so far as hospital arrangements are concerned, the establishment having been fixed on the most liberal terms. For the European portion, numbering in all about 1000, ten beds for officers and 200 for men in the field and general hospital have been provided. This is in addition to the hospital ship *Maine*, containing 175 beds. For the native portion of the force, numbering in all, including non-combatants, about 30,000, there are 1300 beds in native field hospitals, 1500 in the general hospitals, 200 on the line of communications; also two hospital ships containing about 365 beds, and 500 beds in the General Hospital, Calcutta. The *personnel* sent to China comprises 135 medical officers, 35 assistant surgeons, 25 native hospital assistants, and 224 nurses. All the hospitals are fully equipped, the ambulance includes 180 bearers to each field hospital and nine ambulance tongas. A complete conservancy establishment accompanies each hospital. We are assured by a correspondent, a medical officer, that 'the utmost care was taken by the military authorities in India to prevent any failure of system, it being recognised that the difficulties of the campaign may be great, and with a trying climate to face the native troops might feel the strain greatly. But the care with which every detail is worked out ought to be a guarantee that the troops will be well cared for.'"

Major R. H. Firth, R.A.M.C., has been selected to succeed Colonel J Lane Notter, R.A.M.C., as Professor of Military Hygiene at the Army Military School, Netley.

Correspondence.

"Audi alteram partem."

"THE NOTIFICATION OF PLAGUE."

To the Editors of THE LANCET.

SIRS,—The letter of Dr. Colvin in THE LANCET of Oct. 6th (p. 1040), under this title, revives in my mind an impression which has been present to me ever since the Notification Act has been in operation—viz., that it is most unfortunately constructed in respect of the *name* of the disease being required as an almost essential element in the notification. What is desirable in the public interest is the earliest possible communication to the sanitary authority, not of a fully formed diagnosis, but of even a reasonable suspicion, founded on stateable facts, of infection. In the early cases of plague in Glasgow, for example, no one (medical or otherwise) was concerned in any of them who had ever seen a case of plague, and much credit is justly due to those who even hesitatingly approximated to a correct diagnosis under these circumstances. Yet here is a case (as indicated by Dr. Colvin) which, though plainly one of bubonic plague and arising, moreover, in distinctly traceable association with other cases, was 18 days suffering under acute symptoms before Dr. Colvin was called and from his previous experience was able to give the disease a name. It is quite true that there was "no regular medical attendance," and perhaps no one was to blame for this. But is it not quite obvious now that a woman who had a temperature of 104° F. when first casually seen, who was "raving" even at the commencement of her disease, and who "had been to the wake in Rose-street" and otherwise in association with other cases removed to hospital as being cases of an infectious disease, ought to have been at once reported to the authorities whether with or without a diagnosis? It is a matter of notoriety that the reporting of cases under the Act is often deferred for days (if not for weeks) till the diagnosis is made perfectly clear, and medical men have even been blamed for reporting cases which have not turned out to be what at first it was supposed they might be. In my opinion the Act ought to have been so constructed that every case, not only of fully-formed infectious disease, but every case in which a reasonable presumption of infection exists (as of even indefinite illness in an infected locality) should be at once reported, leaving the diagnosis in some cases to follow the notification; and,

further, some inducements ought to be held out to make such notifications (not necessarily by medical men or in medical language) to all persons having anything to do with the sick, or even living in the neighbourhood and thus interested in checking the spread of infectious disease there. No doubt this would lead to a number of ill-considered and perhaps even to some designedly false or merely alarmist notifications, but in cases having "no regular medical attendance" the advantage of so notifying is obvious; and even when a medical man is in regular attendance he ought to be stimulated to make the earliest possible notification by the knowledge that if he failed in communicating his partially formed suspicions someone else might do it before him.

I am, Sirs, yours faithfully,

Edinburgh, Oct. 8th, 1900. W. T. GAIRDNER.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY AND THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—In April of this year I received as a circular the annual report of the London and Counties Medical Protection Society in which some severe strictures upon the action of the General Medical Council were introduced. In THE LANCET of March 31st you published a leading article upon those strictures, having evidently assumed that they were well founded. As a member of the Penal Cases Committee of the General Medical Council I was subsequently led to ask the secretary of the London and Counties Medical Protection Society to supply me with the facts of the cases upon which his society had formulated the charge referred to, and on their receipt I re-investigated the three cases with every care.

On May 5th I reported the result of my investigation to Dr. Hugh Woods and his council, and after waiting for an answer more than 20 weeks I received in response to a note of Sept 26th, the following from Dr. Woods "that neither my council nor I considered that a reply was required." I now inclose you my letter of May 5th for publication and you will judge whether it is worthy of an answer or is unanswerable. At any rate, it is to be regretted that a medical protection society should circulate freely an accusation against the General Medical Council—which has only done its duty—based upon such slender material as has been adduced.

I am, Sirs, yours faithfully,

Grosvenor-street, W., Oct. 9th, 1900. THOMAS BRYANT.

[INCLOSURE.]

Letter to Dr. Hugh Woods, Honorary Secretary to London and Counties Medical Protection Society, 12, New-court, Lincoln's-Inn, W.C.

65, Grosvenor-street, Grosvenor-square,
May 5th.

DEAR SIR,—I have on April 26th received from you with thanks the final instalment of the brief but precise information I asked for in my letter of April 5th, to enable me to re-investigate the merits of the cases upon the treatment of which by the Penal Cases Committee of the General Medical Council your society has publicly founded against the General Medical Council the serious charge which I now quote from the last year's report, which has been printed and freely circulated, of your society.

"Your council have reported to the General Medical Council several cases of alleged 'infamous conduct' on the part of professional men. Before reporting such cases your council have *made most careful inquiry into the justice and validity of the complaints which have been submitted to them.* Of the cases thus reported, some did not go beyond the Penal Cases Committee, although supported *by sworn statutory declarations* which appeared to prove conduct usually deemed 'infamous' in a professional respect, not merely by medical men generally, but by the General Medical Council itself. The grounds on which these cases were refused a hearing by the General Medical Council are not known to the council of your society. And your council feel bound to further express their opinion that the existing arrangements of the General Medical Council do not deal adequately with matters of this sort, which affect not only the interests of the medical profession, but also those of the public at large."

I now as one of the members of the Penal Cases Committee, think it well to inform you, and through you the council of your society, that after carefully going over the statutory declarations of the first three cases as furnished by you from the accusers, and considering the answers as supplied to the General Medical Council by the members of the profession accused of unprofessional conduct by your society—that is, after studying both sides of the questions raised—I have no hesitation in asserting that the conclusions of the Penal Cases Committee in each of the three cases were only such as must have been found by any body of men with common intelligence seeking truth and justice, and that the Penal Cases Committee were entirely right in recommending the Council not to proceed further, and it is clear from your paper that your society was made acquainted with these decisions.

With respect to the two other cases (making five in all), that of the dentist, which you reported on August 16th, was brought before the Dental Committee on Feb. 27th and he has to appear before the Council at the end of this month. In the case of W—— the case was dropped, or rather not brought before the Council, as you refused to supply the necessary statutory declaration upon which the Council alone bases its action, of which you must be well aware.

It is true that in the *first* of the three cases upon your paper you state that the accusation was "clearly proved," but you do not state by what means, although you say in your charge against the General Medical Council that "your council have made most careful inquiry into the justice and validity of the complaints"; and then you go on to assert that "the Penal Cases Committee *condoned a clearly proved case.*" Might I ask upon what grounds you make such a grave and unjustifiable charge?

In the *second* case "you affirm that an unqualified person employed by a medical man and under his cover was habitually undertaking the treatment of medical and surgical cases without supervision," but you say nothing about any inquiries into the truth of the accusation.

In the *third* case you state that you supplied to the Council a statutory declaration and copy of a death certificate in support of a charge against a qualified medical man of having given a death certificate in the case of a person who had not been attended by him during her last illness, and you add "that the truth of this charge must be assumed, as it was supported by a statutory declaration," and when you heard from the Registrar of the General Medical Council that the committee of the Council was not prepared to recommend the Council to proceed further with the case you calmly claim that you are entitled to see and examine the evidence the Council may have obtained to enable it to come to a decision when you ought to know that such evidence is confidential and cannot be made public.

It would seem that in the cases you bring before the Medical Council you are satisfied with the statements of the accuser if he be a member of your society, and that you do not trouble to find out from the accused what amount of truth there may be in the accusation. It would be interesting to know if this be your custom, for, if so, it is somewhat alarming. The General Medical Council does not follow this line of action; it receives the statutory evidence you or others may supply it with, but does not assume its truth, and before it gives a decision it makes most careful inquiry into the justice and validity of the complaints which have been submitted to it, and even goes so far—which, I trust, you will not think unfair—as to ask the accused what he has to say upon the charge before judgment is given. In the three cases now under consideration, and upon which your charge has been based, by this method of proceeding the accused parties were at once acquitted, and rightly so, of the charges made against them, whilst their accusers have escaped with no more punishment than their consciences can give.

In conclusion, allow me to ask (through you) your council to point out in what way justice has been frustrated in these cases through any action of the General Medical Council, and to state upon what grounds they can justify their unanimous vote for the adoption of the charge against the General Medical Council with its publication and circulation in the annual report of April 3rd upon such materials as you tell me it has been based? It seems to me, Mr. Secretary, that in your wish "to explain to the members of your society that its action was not in fault in the matter"—and here I quote your words—and in your anxiety to run a tilt against a public body composed of men with some slight intelligence, business capacity, and honesty, you have possibly unintentionally misled your council to adopt unanimously a resolution for publication which is absolutely unjustifiable upon the grounds stated. For had any one member of your council taken the least trouble to sift for himself the value of the evidence of unprofessional conduct as advanced in the three now famous cases upon which alone your charges against the Medical Council have been based, and not assumed the truth of the evidence of the accusers, even when put into the form of a statutory declaration, and had he, moreover, sought for some explanation from the accused, his decision would doubtless have been the same as the one subsequently come to by the committee of the General Medical Council, and at the same time the committee would have been spared the trouble of investigating cases so badly placed before them, your society the mortification of failure for want of proper methods of investigation and of finding out truth, and you would have been spared the humiliation and shame of having formulated an unjustifiable charge against a public body upon such trumpery material. You tell me likewise "that you have been authorised by your council to publish detailed accounts of these cases for the information of the profession." Should you deem it wise to do so I must ask you to let me know when you do, as I should wish this correspondence to be published with such details. Should you decide not to give details I still hold myself at liberty to send this correspondence, or rather this letter, to the journals, for as your charge against the General Medical Council has been widely distributed it is certainly well that the profession should know upon what grounds it has been made by your society.

Yours faithfully,

THOMAS BRYANT.

AUTO-INFECTION THROUGH THE MOUTH A POSSIBLE CAUSE FOR RELAPSES IN ENTERIC FEVER.

To the Editors of THE LANCET.

SIRS,—Do we ever warn an enteric fever patient not to put his fingers in or near his mouth? I think not. Neither do we instruct his nurse to disinfect his hands and nails as a matter of routine. Amongst the several theories as to the cause of relapse I do not find mention or suggestion of auto-infection through the mouth. The patient is, speaking generally, apathetic and lies without movement for days together; his sordes and his nasal mucous accumulations do not trouble him, and, as Dr. James Barr remarks, "he makes no attempt to remove them." But there are exceptions and the cases of relapse (16 per cent., Shattuck) may occur in those very exceptions—men who are not always contented

to lie still and allow their noses to become blocked and not to move a finger to put matters right. The patient's hands, as a rule, lie by the side of his body; would it be a great wonder if not his hands alone but his nails especially became infected with his own dejecta? Surely not; in spite of the best nursing it must frequently, if not always, occur. In those more restless cases up goes the hand to the mouth or nose and bacillary re-entry takes place.

When enteric fever is at its height during the second or third week the bacillus presumably is most poisonous, and it is probably at that period (judging from temperature charts) when, if the patient is of a "picking" nature, the re-infection is brought about.

In Allbutt's "System of Medicine" the writer remarks in speaking of a relapse that "in most cases it occurs within the first fortnight of convalescence." This observation, estimating the incubative period at from 10 to 14 days, carries us back to the time of high fever. Therefore, if a relapse is going to occur, the re-infection takes place when the patient is half way through his illness. If my theory be correct that the patient's hands are the cause of the relapse, the usual apathy of the sufferer in enteric fever is a potent factor in preventing its occurrence. But we have a safeguard against re-infection if only we take advantage of it—I mean *time*. Fresh typhoid stools are *not* infectious and only become so after one or more days (Murchison, Cayley). The bacilli are anaerobic when first passed (Hüppe) and apparently must have time to become aerobic to be infectious.

Theoretically, then, we ought to be on the safe side if we order disinfection of the hands, &c., once in 24 hours, for where is the most likely place for the bacillus to pass the waiting period before returning to the bosom of his family if not the nails? I suggest, therefore: 1. A relapse is caused by the unclean hands or nails of the patient himself. 2. That the re-admission of the bacillus takes place at the period of high fever. 3. That the incubation period of the relapse is probably as lengthy as that of the initial attack. 4. That his hands, &c., should be disinfected at least every 24 hours and his bed-gear changed as frequently. (Carbolic acid from 2 to 3 per cent. or corrosive sublimate 1 in 5000 kills the bacillus quickly.)

Since writing the above I find that Dr. Horton-Smith in his Goulstonian Lectures (p. 30) remarks upon the difficulty of finding the typhoid bacillus in alvine discharges after the third week, and in Allbutt's "System of Medicine" (p. 822) occurt he words: "The typhoid bacillus has not been found in alvine discharges before the ninth day." These two references agree with my suggestion of the probability of reinfection at the period of high fever and it seems to me, therefore, that we ought to be particularly careful in disinfecting between the ninth and the twenty-first days.

It is only by routine disinfection of cases in hospitals that any reliable statistics can be obtained, and I trust that others will follow the lead of St. Thomas's Hospital, where at my suggestion disinfection of the hands, &c., is now practised. I do hope this theory will not be held to be too "sweetly simple" for belief or rather for a trial of the effect of disinfection. Who knows but that by this means we may be able to banish relapse from our practices and text-books?

I am, Sirs, yours faithfully,

GEORGE W. ORD, M.R.C.S. Eng., L.R.C.P. Lond.

Queen's-road, Richmond, Oct. 9th, 1900.

"THE ETIOLOGY OF RHEUMATIC FEVER."

To the Editors of THE LANCET.

SIRS,—The valuable observations of Dr. F. J. Poynton and Dr. Alexander Paine[1] have at length corroborated those recorded by myself in your journal with regard to the invariable presence in the blood of patients suffering from rheumatic fever of a specific organism, which as long ago as 1892[2] you can by reference to your files ascertain that I described as a minute coccus, and concerning which last March[3] I specifically expressed my ability to demonstrate in any selected case of rheumatic fever. My method of demonstration is somewhat different to that described by Dr. Poynton and Dr. Paine and in the hope of assisting those gentlemen I venture to publish the fact that if the cover-glass preparation is immersed for a few minutes in a solution of bicarbonate of potash the organism can then be most effectively stained with methylene blue. In dealing with rheumatic fever this affords a most practical means of prognosis, as frequently, after all fever has abated, the micrococci present in the blood convey an intimation for the necessity of continued treatment; therefore it has been my custom to administer salicylate of soda until all micrococci have disappeared. With regard to the large bacillus of Achalme I described that also in 1892,[4] but in association with acute gout, of which disease I believe it to be the cause, more especially as I have grown the organism upon nutrient agar agar with the production of uric acid in the test-tube. I am not in a position to continue the necessary experiments, but possibly my investigations may assist others better able to inquire further. My observations were published in THE LANCET and reference to the old files will, I believe, establish the fact that they were prior to the continental discoveries quoted by Dr. Poynton and Dr. Paine. At the time that I made the statements I felt that my own unaided and unsupported records were hardly of sufficient weight to be of much importance. I made several attempts to get more senior authorities to interest themselves in the question, but in 1893 the position of bacteriology was rather uncertain; at last, however, the work of Dr. Poynton and Dr. Paine will, I trust, meet with that appreciation which it deserves and will help to rid this country of, or at any rate to mitigate, one of the most destructive ailments to which the human race is liable. Dr. Poynton and Dr. Paine have made a grand series of investigations which will probably be better appreciated in 10 years' time than at the present moment.—I am, Sirs, yours faithfully,

EDWARD F. GRÜN, M.R.C.S. Eng., L.R.C.P. Lond.

Southwick, Brighton, Oct. 4th, 1900.

[1] THE LANCET, Sept. 22nd (p. 861) and 29th (p. 932), 1900.
[2] THE LANCET, May 7th, 1892, p. 1063.
[3] THE LANCET, March 31st, 1900, p. 964.
[4] THE LANCET, Jan. 23rd, 1892, p. 235.

"THE SMOKE NUISANCE."

To the Editors of THE LANCET.

SIRS,—As health officer of a local authority the members of which are only too anxious to put down the smoke nuisance in their district may I point out to your correspondents "W. B. Richmond" and "L. R." certain facts which I think may be of great interest to them and to the public at large.

I inclose a copy of a report to my Sanitary Committee, presented to my Board last night, and upon p. 37 you will find the following extract upon smoke consumption.

Smoke Consumption.

The smoke consumption in a district such as Poplar forms a very important item in conserving the health of the inhabitants, and there can be no doubt that the smoke consumption being watched by all the sanitary officers on their respective areas, the nuisance arising from the neglect of such consumption will be more quickly abated.

As explained to the Sanitary Committee at their last meeting great care will have to be observed before instituting legal proceedings for obtaining penalties in respect of smoke nuisances, as it must be ascertained at the time of the nuisance who is the person guilty—the master, under Section 23 (1) of the Public Health (London) Act, 1891, in not having proper appliances, or the servant under Section 23 (2)[1] of the Public Health (London) Act, 1891, for not using such appliances. Of course, the fuel used will have to be taken into consideration. Section 23 deals with smoke consumption as a specific offence, but Section 24[2] deems smoke to be a nuisance requiring the service of statutory documents, and the master is held to be responsible even if his servant be negligent.

By Section 23 (5) of the Public Health (London) Act, 1891:—

It shall be the duty of every sanitary authority to enforce the provisions of this section and an information shall not be laid for the recovery of any fine under this section except under the direction of a sanitary authority.

But by Section 24 of the same Act smoke nuisances

Shall be nuisances liable to be dealt with summarily under this Act and the provisions of this Act relating to those nuisances shall apply accordingly.

Now it appears to me that by Section 12 (1) of the Public Health (London) Act, 1891, *any person* can take action for proceedings in respect of nuisances under Section 24 of the Public Health (London) Act 1891.

Section 12.—(1) Complaint of the existence of a nuisance liable to be dealt with summarily under this Act on any premises within the district of any sanitary authority may be made by any person, and thereupon the like proceedings shall be had with the like incidents and

[1] Chisholm *v.* Doulton, 22 Q. B. D., 736.
Barnes *v.* Akroyd, 7 Q. B., 474; and Niven *v.* Greaves, 54 J. P., 548.

consequences as to making of orders, fines for disobedience of orders, appeal, and otherwise, as in the case of a like complaint by the sanitary authority.

So that the Coal Smoke Abatement Society can take action for smoke nuisances in the same manner under Section 12 (1) of the Public Health (London) Act, 1891, as the Mansion House Council take action in the case of other nuisances—viz., by applying for summonses in order to procure abatement or prohibitory orders.

I am, Sirs, yours faithfully,

FREDERICK WM. ALEXANDER,
Medical Officer of Health, Poplar and Bromley.

Bow-road, Bow, E., Oct. 10th, 1900.

THE POSITION OF COLONIAL MEDICAL OFFICERS.

To the Editors of THE LANCET.

SIRS,—Now that we read and hear so much of the grievances of the medical departments of the army and navy it may not be out of place to bring forward the conditions under which colonial medical officers are required to serve on the west coast of Africa, most of whom, it is well to remember, have had "war experience" in the many punitive expeditions which are so frequent in that unknown and benighted country. With the exception of Nigeria, which may be said to be in a state of evolution at present, the following conditions apply to the other British possessions (I cannot call them colonies) on the west coast.

1. *Pay.*—From £300 to £500 by varying increments annually, biennially, triennially, as the case may be.

2. *Pension.*—There are only two conditions under which a pension can be drawn: (*a*) old age (one man alone draws a pension under this head); and (*b*) bad health; if an officer is permanently invalided out of the service and has already served seven years he is allowed one-fortieth of his salary multiplied by the number of years served. Under this heading I should mention the existence of some rule whereby a man having served 10 years is allowed to add five years to the time served, but nobody seems to benefit by it. The fact remains that when the invalid comes home he is allowed nothing in proportion to his service.

3. *Quarters.*—Most, if not all, of the quarters supplied are not fit to put Europeans to live in in the tropics.

4. *Allowances.*—10*s.* per diem may be said, generally speaking, to be the allowance, whether travelling or fighting, it does not matter which.

5. *Messing.*—No provision whatever is made in this most important branch of tropical hygiene.

6. *Leave.*—Six months' leave for every 12 months' service. This is as it should be.

The above, with the exception of No. 6, are not enticing and can only be considered repellent when applied to such an unhealthy climate. It is notorious that service under the Colonial Office is unpopular, and now that candidates are scarce it is impossible to fill any vacancies. Here, by the way, I may draw attention to the fact that a lady doctor has just been appointed to the Ashantee Expeditionary Force. The Ashantee revolt which is now raging, though overshadowed by events in South Africa and China, has been the means of bringing to notice several medical men who, though nominally "civilian," have done their share of fighting which has caused them to be mentioned for their bravery and devotion under the most trying circumstances it is possible to imagine. The rules governing employment under the Colonial Office are out of date and should at once be redrafted to meet the requirements of a rapidly growing department. There are at the present time over 100 colonial surgeons on the west coast of Africa. It is easy as a rule to complain, but not always easy to suggest a remedy; fortunately in this case the treatment is obvious.

1. *Pay.*—From £400 to £800, rising by yearly increments of £50. Private practice to be allowed wherever expedient.

2. *Pension.*—After 15 years' service at the rate of £1 a day.

3. *Quarters.*—Properly constructed tropical quarters in accordance with the teachings of sanitary science.

4. *Messing.*—In each district a thoroughly organised mess should be established.

5. *Recognition* to be granted for any work outside medical duty.

6.—*A medical service* for the whole West Coast might be easily constituted whereby all might serve under the same conditions and one principal medical officer, &c.

This suggestion I have placed last, though it is really the most important, but one feels shy in throwing out practical hints lest there might be an epidemic of "fits" should this letter find its way to Downing-street. A system on these lines would be bound to attract young men of the right sort, for not only would the pay be adequate, but the chance of "seeing service" combined with pleasurable excitement would appeal strongly to the manly instincts of junior medicos. I apologise, Sirs, for taking up so much of your valuable space, but if you can succeed in improving a worthy branch of the service you will deserve the thanks of the community.

I am, Sirs, yours faithfully,

Oct. 8th, 1900. M.D.

THE QUESTION OF THE COMMUNION CUP.

To the Editors of THE LANCET.

SIRS,—It is surely high time that some steps were taken to enlighten the general public on the dangers in connexion with the "one cup" mode of administering the Holy Sacrament. I have just lately heard from a lady friend who says she knows of one church at which a man with cancer of the tongue, and another suffering from some chronic throat affection (probably laryngeal phthisis) attend regularly the Communion Service and partake of the bread and wine. For myself I have long since given up going, for with my eyes open to its dangers and uncleanness I cannot bring myself to attend. Why cannot small glasses or cups be used, to be provided either by the church authorities (this I am pleased to hear some few churches have adopted) or by each communicant? This source of danger and means of communicating disease might easily be avoided. Unobtrusively wiping the lip of the cup after each communicant has used it—also, I believe, done in some churches—is some improvement as regards cleanliness but is not altogether devoid of danger. It was a great comfort when, after much agitation, the Scotch form of taking the oath by uplifted hand took the place of "kissing the book" in courts of law. Why cannot the medical profession in these enlightened times also agitate over this more dangerous practice?

I am, Sirs, yours faithfully,

Oct. 7th, 1900. MEDICUS.

*** We refer to this question in another column.—ED. L.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Report of the Health Officer of Calcutta for 1899.—The Continued Rise in the Plague Mortality throughout India.—The Success of the Pasteur Institute at Kasauli.

MR. NIELD COOK in his report to the chairman of the Corporation of Calcutta refers to the drawbacks attending the system of having separate staffs from that of the Health Department for plague administration. He draws attention to the unreliability of the mortality ratios and to the practically valueless information as regards mortality from special diseases. The low birth-rate in Calcutta is probably due to the small female population. It is interesting to note that the Christian population is the most prolific, then the Hindus, and lastly the Mohamedans, but it is admitted that the registration of births depending largely on the midwives is defective. The death-rate for the year was 37·8 against 31·9, the average, the excess being fully accounted for by the plague. The mortality in the suburbs was higher than in the town. The infantile mortality was very high, giving a ratio of 366·8 to every 1000 children born during the year, the Mohamedan ratio being 504·3, the Hindu ratio 334·7, while the Christian was only 174·4. It is probable that the marriage customs largely account for these differences. The figures recorded appear to show that the female mortality was far heavier than amongst males, but there is no reason to explain this, and it is suggested that the female population is under-estimated. Mr. Nield Cook's inquiries concerning the habitats of mosquitoes have been previously recorded. He confirms previous observations that anopheles larvæ are not generally found in clean water, but that many of the anopheles tanks contained quantities of fish and tadpoles. On the other hand, they are not found in

the filthiest tanks reeking with sewage. Cholera and small-pox were below the average of previous years. With regard to vaccination he records that 84·97 per cent. were successful. While the animal lymph gave over 95 per cent. results the humanised was only successful in 58·9 per cent. The protection from small-pox is not very satisfactory as the case-mortality among the vaccinated is recorded as 33·33 per cent., while among the unprotected it was 54·41 per cent. One of the numerous difficulties of the health officer of Calcutta is shown by the returns concerning the slaughter-houses. Mr. Nield Cook says: "The reason for the falling off in the number of animals slaughtered is that a great deal of slaughtering is done in unlicensed houses in the town which we are powerless to prevent, as the courts will not convict unless our officers have actually seen the animals slaughtered." Another consists in prosecuting for keeping animals for profit without a licence—the average fine being under Rs. 5. As Mr. Nield Cook says, "It paid better to keep a large number of cattle in an unlicensed and insanitary shed and adulterate the products than to spend money on well-constructed stalls, taking out a licence and selling only pure milk and ghee." In 1898 he also showed that the milk supplied was for the most part adulterated with sewage-contaminated water from shallow wells close to the sheds, and he now says that "no appreciable improvement has been effected." The conservancy troubles and difficulties in Calcutta are perennial and the insanitary state of the buildings appears hopeless. The report of one year on these subjects is very much like others. In the course of his report Mr. Nield Cook refers to several points upon which he has previously made suggestions but in which no change has been effected. It is hoped that with the new Act a better day is in store for Calcutta. The previous Commissioners were numerous and chiefly native but the present board is much smaller and has a larger European element. The disgraceful condition of the city is patent to the most casual observer. As the metropolis of India it is an unpleasant wonder to all new-comers.

The plague mortality continues to rise, especially in the Mysore State and the Bombay district. The total deaths in India last week were 1049, against 691 in the preceding seven days. Calcutta reports 78 deaths and Bombay city 52. The plague is slowly increasing in the city of Poona and the death-rate is more than treble the normal. Part of this, however, is due to cholera. Cholera still continues in the military cantonments and now enteric fever has broken out in an epidemic form amongst the European troops at Quetta. 17 deaths have so far occurred. It is still prevalent in Kashmir. At the present time plague seems to be quiescent in the cities of Calcutta and Bombay. The indications for a recrudescence must be carefully sought for. The present weekly minimum returns of plague deaths seem about the same for the two places, but in Calcutta suspicious deaths are included in the figures. An examination of the Calcutta returns brings out the following. After the decline of an outbreak and during the quiescent period (such as the present) the number of deaths returned as suspicious is about half the amount of the deaths from plague, but for a month or two before the active development of an outbreak such as occurred last spring the suspicious deaths rise so as to equal in number those from plague. With the rapid onset of the outbreak the deaths from plague increase in proportion so fast that during the worst stage they may exceed ten times the number of suspicious deaths. This comparison is not possible in the case of Bombay. All that can be inferred is that the number of deaths from plague is double that recorded. The general mortality in Bombay is twice as great as its normal amount. Famine is rapidly decreasing, the numbers now on relief having sunk to less than 4,500,000.

The new Pasteur Institute has been quite busy. 26 out of the 39 patients who have been admitted since August 9th have completed the course of treatment. The effect has been quite normal in all cases. Five new cases, all natives, have entered during the week and 13 patients are now attending the institute. The Government can well afford to ignore the petitions and indignation meetings of a few energetic anti-vivisectionists.

Sept. 13th.

MR. GEORGE SANDERS, a former mayor of Taunton, has presented the Taunton District Nursing Association with a large house as a memorial to his wife.

THE PARIS CONGRESSES AND COLONIAL SANITATION.

(FROM OUR SPECIAL CORRESPONDENT.)

FORCED LABOUR AND PUBLIC HEALTH.

THE International Congress of Colonial Sociology which met in August and the International Peace Congress which has just concluded its sittings discussed colonial questions at great length and in doing so devoted some time to the consideration of measures calculated to protect and improve the health of the native populations. In such matters sociology is intimately connected with hygiene and it is difficult to draw a line of demarcation between the two. For instance, there is the question of the *corvée* or forced labour. In some French colonies this is allowed for a period of 30 days in the year; but it almost invariably gives rise to abuses and sometimes it has been prolonged illegally to 160 and even to 200 days. The natives, also, are frequently sent great distances from their homes, where both food and shelter are insufficiently provided, and what with exposure and hard work a very high death-rate results. In the face of the evidence adduced both congresses stigmatised, by the resolutions they adopted, the system of forced labour as a cause of the diminution of the native population and as likely to foment a spirit of revolt. The measures taken to prevent the abuse of the system are never efficacious, and, after all, good work is only done by willing workers. Nor is there, as a rule, a lack of willing workers where sufficient pay is offered. The principal advocates of the *corvée* are those who wish to have work done but do not wish to pay for it. Therefore, both congresses voted against the *corvée* system, and this not only as a measure of justice and humanity towards the natives or as a matter of policy to prevent disturbances and risings, but also as a sanitary necessity to check the high death-rate and the epidemics that accompany the application of the *corvée* system. What stood out prominently in the discussion of this and other questions was the mistrust felt in regard to colonial officials. Perhaps this mistrust is more justifiable with regard to the French than to the British colonies. Not that I would for a moment make any disparaging comparison between the two nations, but it is an undoubted fact that Frenchmen do not so readily expatriate themselves as Englishmen, consequently it often happens that a Frenchman only resigns himself to emigration when he has such a stain on his character that life at home becomes intolerable. The same may be said of some British emigrants, but the proportion of black sheep is not so great because many more Englishmen emigrate from choice and not from necessity. More particularly in Africa one of the greatest difficulties in dealing with the native tribes is their utter want of forethought—they live without the slightest care for the morrow. Then if there is a bad harvest, a flood, or any other untoward occurrence, great distress prevails, accompanied with much sickness and a high death-rate. Since 1893 societies have been started among the natives of Algeria so as to create funds for the purpose of granting loans for the purchase of seed and for help in sickness, &c. These sort of mutual benefit societies and agricultural banks have helped many natives to tide over an evil hour, thus contributing to maintain the prosperity and health of the colony, and the Congress of Colonial Sociology passed a resolution recommending that such institutions should be established wherever local circumstances seemed favourable to similar endeavours. When, however, this same proposal was brought before the Peace Congress as tending to the pacification of the populations concerned M. Laroche, who is an eminent authority on colonial questions, rose and protested. Some measure of success, he said, might have been achieved in Algeria, but that was an old colony; it had been occupied by the French for 60 years and was only a few hours from Marseilles. In the more recently acquired and more distant colonies the European functionaries were not to be relied upon. Instead of teaching thrift they would utilise such institutions to practise still greater extortions and robberies upon the natives. So it comes to this—that whether the question be considered only from the sanitary or else from the general

point of view the first difficulty and the first necessity is to obtain honest and reliable functionaries.

THE SANITARY MEASURES PROPOSED.

Needless to say, the alcohol and the opium traffic came in for a large share of abuse. Resolutions were passed urging that the agreement embodied in the Acts drawn up at Brussels in 1890 and 1899 so as to restrict the liquor trade in certain parts of Africa should be generalised and that by diplomatic agreement such restrictions should be applied to all the colonies where there was a large native population. Then it was urged that there should be a distinct sanitary bureau or administrative department established in all colonies to deal with health questions as affecting the native populations. This would be, it was affirmed, the most effective means of preventing the physical degeneration of the natives. Unfortunately the tendency has been to study colonial sanitation only in so far as it affects the European troops and settlers; but it is now urged that the only moral justification for acquiring colonies is that the superior and conquering race shall confer on the natives greater security of existence and a higher moral and material standard of life. Thus at the International Congress of Hygiene the sixth section was devoted to military, naval, and colonial hygiene, but the papers read on the latter subject discussed the outfit to be given to the troops engaged in colonial expeditions, the filtration or sterilisation of the water which the Europeans drink, and the establishment of health stations for the sick and convalescent. Little or nothing was said about the natives. Now the Peace Congress, though it very properly declared that it was not competent to deal with the technicalities of sanitation, enthusiastically re-affirmed and endorsed the resolution carried by the Congress of Colonial Sociology to the effect that sanitary measures and reforms should not be limited to the European populations of the colonies. Good sanitation is as necessary for the natives as for the colonists and the Congress of Colonial Sociology by a series of resolutions indicated what measures of this description seemed most urgent. Firstly, they were in favour of segregation for cases of leprosy but proposed that the lepers should be placed within domains situated at considerable distances from towns and sufficiently large to enable the lepers to enjoy a fair amount of liberty within the prescribed district. The public authorities should take this matter in hand and see that all that is necessary is provided. Lepers should also be registered and notices sent to the local authorities whenever they changed their domicile. Then the Congress was very emphatic on the need of adopting effective measures to check the spread of syphilis among natives. It urged that more care should be taken to explain the nature and the dangers of this disease and to provide the necessary medical aid so that natives should have no difficulty in obtaining gratuitously efficient treatment. In those colonies where prostitution is placed under police and medical surveillance the best rather than the worst European methods and regulations should be imitated. With regard to small-pox there should be public vaccination stations established in as many localities as possible for the benefit of the natives. Then wherever possible native schools of medicine should be created and, above all, it was considered urgent to train as midwives a large number of native women. After this complaints were made that in organising the scavenging and the drainage of towns in the colonies there was a tendency to neglect the native quarters though they really require more care and attention than the quarters inhabited by Europeans.

For all the sanitary services technicians should be employed and not military officers or ordinary civil servants. In a word, all the advantages of European civilisation should be extended to the native population. In this manner only can the colonies be rendered really prosperous; and to appreciate this progress births and deaths among the natives should be registered and statistics collected as in Europe. Nor should all these measures be left to the colonists themselves, who, too often, are the worst enemies of the natives. There should be some method of inspection and control, either from the metropolis or at least from some large centre, so that the inspectors should be quite independent of all local interests and influences and able to act with impartiality.

Such were the desiderata of a large number of delegates who belong to various colonising nationalities and who have made a special study of all that relates to colonial expansion. There is little or nothing in this with which the sanitary reformer is likely to disagree, but its realisation will be a matter of great difficulty. Instead of emigrating with the fixed purpose of helping in every way to establish a well-administered and prosperous colony the emigrant is too often animated with the sole desire of making "his pile" rapidly and then returning home. Hence the neglect and the abuses that are a discredit to Europeans, that cause insurrections, and too often result in both the moral and physical degradation of the natives. The Paris Exhibition, in bringing together from all parts of the world men who have personal experience of colonial life, has enabled them to place on record what should be done; and though there is nothing very novel in all these proposals, yet the fact that they have thus been authoritatively brought forward should be of use and should serve to stimulate the desire for colonial reform and for better administration. Above all, it is a wholesome sign to find that the natives have now met with a large amount of public attention. It is just as necessary to secure good sanitation for the natives in the colonies as to watch over the sanitary condition of the poor at home.

Paris, Oct. 8th.

MEDICAL TITLES IN GERMANY.

(FROM OUR BERLIN CORRESPONDENT.)

ENGLISH visitors to Germany are often surprised at the great number and variety of titles existing in that country. In ordinary conversation they hear the terms "Herr Geheimrath," "Frau Regierungsrath," &c., lavishly used, and they soon become aware that Germans in general are very fond of titles and attach a great importance to those distinctive appellations. A short article on German titles, and especially on such as are conferred on medical men, may therefore be not without interest to the readers of THE LANCET. But before entering on the subject I must explain that in the space at my disposal it would be impossible to do more than touch upon a small portion of the extensive question of German titles, for the regulations defining the rank and dignity conferred by the several classes of titles are extremely elaborate and there are well-marked differences of usage in the various states of the Empire. There are, in fact, but very few men who have a complete understanding of the subject, and they have only succeeded in this by making it a special study.

There are two points in which the English and the German practices with respect to titles differ considerably. In the first place, a German who has received a title or an official position of any kind expects to be always addressed accordingly, not only in epistolary correspondence, but also in conversation. For instance, in speaking to a town councillor (Stadtrath) whose actual family name is Schmidt it is essential to call him only "Herr Stadtrath," and a letter intended for him must be addressed "Herrn Stadtrath Schmidt." Another peculiarity is that the wives of possessors of titles, officers, or public officials usually assume their husbands' titles, so that the wife of a colonel (Oberst) must be addressed as "Frau Oberst." Some writers not of German nationality, and, in fact, chiefly French, have asserted that the daughters of public functionaries or possessors of titles have a right to be addressed in a corresponding manner, so that the daughter of a Government councillor (Regierungsrath) ought to be "Fräulein Regierungsrath," but this is quite erroneous and a mere flight of fancy. Passing now to the strictly medical side of the question it must be explained that the proper official designation of a qualified practitioner is "Praktischer Arzt," but this title is only used in communications of the nature of letters and never in conversation. It would, in fact, be quite unusual in speaking to a medical man to say "Herr Arzt." The great majority of medical men having also taken the degree of M.D. they are addressed in conversation as "Herr Doctor," this title being used indiscriminately by the public in speaking to every medical man although he may not be M.D. After having been in practice for a certain time, perhaps from 20 to 25 years, medical men who are of good professional standing and have not made themselves too prominent as opponents of the Government may, on the recommendation of the Minister, be favoured by the Sovereign with the title of "Sanitätsrath" (sanitary councillor). The usual procedure is that patients or

friends of the medical man in question present a petition to the Government asking that he may be promoted to that honour. Sometimes the promotion is granted spontaneously for exceptional services to the town and the State and also on special occasions, such as a jubilee. On account of a rather high stamp duty being required for the diploma by the new Stamp Laws and also on account of a medical man so promoted having declined to pay this duty[1] the Minister of Public Instruction, as chief of the medical department, has ordered that medical men must beforehand declare expressly that they will accept their title. Medical men having this title are addressed in conversation as "Herr Sanitätsrath," the title of "Dr." being omitted, whilst on letters the proper address is "Herrn Sanitätsrath Dr. X." After a certain time the "Sanitätsrath" may be promoted to the rank of "Geheimer Sanitätsrath" (privy sanitary councillor). This title is used in the same way as "Sanitätsrath," but as the expression "Geheimer Sanitätsrath" is rather lengthy it is the custom in conversation to abbreviate it to "Herr Geheimrath," a word the dictionary rendering of which (privy councillor) is hardly a key to its practical application. On letters, however, the full title must be used. The same custom exists in the case of privy councillors of other classes as, for instance, privy councillors of justice, a title given to lawyers, or privy councillors of commerce, a title given to leading bankers, manufacturers, &c., who in conversation are addressed only in the abbreviated form, "Herr Geheimrath." Apart from the titles of "Sanitätsrath" and "Geheimer Sanitätsrath" there are other distinctions, the special features of which are that they are not given to medical practitioners merely as such, but are as a rule associated with a Government appointment. The chief medical officers of health of a district (Regierungsbezirk) and the members of the provincial medical boards when appointed to these offices receive at once the title of "Medicinalrath" (councillor). After a certain time passed in the Government service they are usually promoted to the rank of "Geheimer Medicinalrath" (medical privy councillor). The latter title belongs by virtue of their office to the members of the central medical department of the Government in Berlin, the senior members of this board enjoying even the title of "Geheimer Ober-Medicinalrath" (upper medical privy councillor). The title of "Geheimer Medicinalrath" is granted, moreover, as a mere personal distinction to the majority of ordinary professors of the universities and to the senior extraordinary professors as well. Professors who have received this distinction are addressed only as "Herr Geheimrath" in conversation, whilst the full title of Professor Virchow is "Herrn Geheimen Medicinalrath Professor Dr. Virchow." The highest distinction of this kind which can be conferred on anyone whomsoever is the title of "Wirklicher Geheimer Rath" (real privy councillor), which is very seldom granted to medical men, but is generally reserved for high Government and Court officials, Ambassadors, &c. A "Wirklicher Geheimer Rath" is addressed as "Excellenz" (your excellency), and the only medical man at present holding this title is Professor von Esmarch in Kiel. The term "wirklicher" (real) does not mean that the bearer has any duty to perform, the title being an honorary distinction only. The title of "professor" belonged originally to the occupants of chairs in the universities. There are ordinary and extraordinary professors, the number of the first category being strictly limited by the university statutes. Ordinary and extraordinary professors are first elected to that office by the faculty and the election has then to be sanctioned by the Sovereign.

Apart from members of the universities it became usual a few years ago to grant the title of professor to senior *privat-docenten* and also to the chief physicians and surgeons at some of the larger hospitals even though they had no connexion with a university. Whilst in the case of the members of the universities the term "professor" implies the performance of certain duties, the last-mentioned category receives the title of professor as a merely personal distinction conferred by the Government. The full title of a university professor of medicine would be in this form: "Ordentlicher [or ausserordentlicher] und öffentlicher Professor der Medicin" (ordinary [or extraordinary] public professor of medicine), whereas that of the second category is merely "professor" without any addition. In conversation, of course, no distinction is made, both categories being addressed as "Herr Professor."

[1] THE LANCET, March 31st, 1900, p. 970.

What precedes relates only to the titles used in Prussia. The right to grant titles is a prerogative of the sovereigns of the individual states of the empire and the systems adopted by them differ widely from one another. In Bavaria, for instance, it is not usual to grant the title of "councillor" to ordinary practitioners, the title of "Hofrath" or "Geheimer Rath" (court councillor or privy councillor) being conferred only on medical men in the Government service or on the professors at the universities. The title of "Geheimer Hofrath" (privy court councillor) is used in Baden and in Würtemberg. The title of "Sanitätsrath," used in Prussia and in several smaller states.

It is the rule to add the name of the state by which the title has been granted, for instance, Royal Prussian Medical Privy Councillor or Grand-ducal Baden Privy Court Councillor, &c. In the free cities of Hamburg, Lübeck, and Bremen no titles are conferred.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Medical Faculty of the University of Birmingham.

THE first session of the Medical Faculty of the University of Birmingham was opened on Oct. 1st by a conversazione held at the University at the invitation of the Vice-Chancellor and Council. Some 350 invitations were issued and the guests were received by Principal Lodge and the Dean of the Medical Faculty, Professor Windle. The Principal presided in the medical lecture-room and in the course of his remarks said that unity was the great principle to preach and divisions were scrupulously to be avoided. The University should be a corporate body banded together for the advancement and distribution of learning. The medical school was stated to be in a healthy and robust condition. The Dean then delivered an address on the advantages of the school and the system of training in the new University. This was listened to with much attention and interest. A vote of thanks was passed to the Dean, after which the Principal announced (amid applause) that the Council had that afternoon unanimously elected Professor Windle to represent the University on the General Medical Council.

The Clinical Board.

The prizes awarded by the Clinical Board were distributed on Oct. 8th in the lecture theatre of the General Hospital by Sir Henry Littlejohn, Professor of Forensic Medicine in the University of Edinburgh. At the invitation of the President, Mr. T. F. Chavasse, a large number of medical men and their friends assembled. Sir Henry Littlejohn dwelt upon the advantages of the practical side of professional education, stating that the system was due to the continental schools in the first instance, whose initiative had been wisely followed. Every department of medical study, with one exception, had its corresponding practical course, the exception being the important subject of medical jurisprudence. Every professor and lecturer of forensic medicine should in his opinion hold such an official connexion with the criminal authorities as would enable them to give a practical character to their prelections and thus to fit the students to give satisfactory evidence in the witness-box. He eulogised the Scottish system of medico-legal procedure which would ultimately, he thought, be adopted south of the Tweed. The small end of the wedge had been introduced by the establishment of the office of director of criminal prosecutions. Sir Henry Littlejohn proceeded to admonish the students present on various points of their professional training, his remarks meeting with hearty applause. A cordial vote of thanks was accorded to him for coming so long a distance to deliver the address and for the interesting and practical thoughts which it embodied.

The Musical Festival.

The triennial festival of music for which Birmingham has obtained so great a reputation concluded on Oct. 5th. The final meeting of the committee took place on the following morning when congratulations were interchanged on the splendid success which had been obtained. It was stated that the receipts amounted to £14,952, as against £13,722 for the previous festival, and that still there were many donations to come in. It is expected that a handsome sum

will accrue to the General Hospital, in whose favour the festival is always held.

Exhibition of Lunatics.

Much excitement has been created in the minds of a number of good people by the perusal of the syllabus of the medical faculty of the University, where it is stated that in the lectures which are delivered by the medical superintendent of the asylum as professor "cases will be exhibited." Science and sentiment have clashed in the correspondence upon the subject and, as usual, some misunderstanding is the result. The express sanction of the Asylum Committee is demanded as a matter of public interest. The chairman, however, has stated that so far no complaint relating to the present practice has been made to them either by the friends or the patients. Therefore the committee cannot well take notice of anonymous correspondents on this subject. Probably more will be heard of this in the future.

Oct. 9th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Hospitals Fund.

A MEETING of the General Committee of the Manchester Hospital Sunday and Saturday Fund was held recently, when it was reported that the funds in hand, after deducting £552 for expenses, amounted to £6647. It was decided to make the following distribution to the medical charities:—

Royal Infirmary	£1129	Hospital for Consumption ..	£235
Children's Hospital	905	Cancer Pavilion and Home	112
Sick Poor and Private Nursing Institution ...	734	Hospital for Skin Diseases..	87
Salford Royal Hospital ...	516	Hulme Dispensary	66
Hospital for Incurables ...	503	Victoria Dental Hospital ...	55
Ancoats Hospital	462	Ear Hospital	41
Clinical Hospital...	424	Chorlton-on-Medlock Dispensary	37
Royal Eye Hospital	406	Homœopathic Dispensary...	9
St. Mary's Hospital	396	Homœopathic Institution...	9
Southern and Maternity Hospital	356		

Last year the amount distributed was £7000. The decrease, no doubt, is due to the War Fund and Indian Famine Fund, to which the workers in many firms have contributed. The medical charities are to be asked to supply annually a uniform analysis of their accounts so as to facilitate the preparation of the statement on which distribution is based. A deputation from the committee of the Fund, from the Royal Infirmary, and from the Ancoats Hospital has recently urged on the Watch Committee the need of providing a horse ambulance service. The deputation were told that the matter was "under consideration"—where such matters often remain—but, what is more encouraging, they were also told "that their views would probably be fully met." It is by no means a new idea that Manchester suffers from want of a horse ambulance service, but while the Manchester corporation can speedily decide as to what must be done with hundreds of thousands, or even a million or two, a comparatively small matter such as a horse ambulance service to be used for the sick and injured requires an enormous amount of consideration and must not be determined on rashly.

Sale of Drink to Children.

Probably even the staunchest supporters of the view that moderate drinking is good for the individual and is good therefore for the community, and should not be interfered with by any legislative measures, would hesitate to include children in their conception of "the public" and would not be averse to a measure which would save them from becoming familiar with the manners and the language commonly to be observed at the licensed house at the corner. A conference to inaugurate a fresh effort in aid of a Bill to prohibit the sale of drink to children under the age of 16 years was held in the Botanical Gardens in connexion with the Band of Hope Union on Sept. 26th. There can be no question that fetching beer from the public-house, and often enough sipping it on the way home, are likely to bring about a habit which may, and in numerous cases will, result in the excessive drinking which is so injurious to the physical and moral condition of the people and which is so costly in its direct and indirect results as to be a heavy burden on the nation. It was stated by Mr. Wakeley, secretary to the Band of Hope Union, that "in Manchester 1764 out of 2922 licensed houses were in the habit of serving children." There seemed to be a general feeling that no help was to be expected from the "politicians" in Parliament and that, as Archdeacon Wilson said, "the temperance party must give Parliament to understand that opposition was useless, for they were in earnest and would not be denied."

Death of Benjamin Jones Massiah, M.D. Edin., M.R.C.S. Eng.

It is with great regret that I record the death of Dr. B. J. Massiah of Didsbury, the scene of his practice for many years. His health had been failing for some months, and about three weeks ago he went to Bournemouth for change of air and rest. On Sept. 29th he became alarmingly ill and died on the 30th from peritonitis. Dr. Massiah studied at Bristol, his native city, and afterwards at Edinburgh. His first association with Manchester came from his appointment as resident medical officer to the Cheadle Convalescent Hospital. In 1881 he began practice in Didsbury, where he took an active part in social and public life. His remains were cremated at the Manchester Crematorium. As life goes nowadays Dr. Massiah died young—he was aged 53 years. Kindly, genial, and cultured, his loss will be felt, not only by his patients and his colleagues, but by a wide circle of friends. He married about 12 months ago and has left a widow to lament his death.

Fatal Maltreatment of an Imbecile.

An inquest was held on Oct. 5th, by Mr. Sidney Smelt, the city coroner, on the body of Francis Southgate, lately an inmate of the Manchester Union Workhouse at Crumpsall. Various witnesses deposed to having seen violence used towards the deceased by an attendant named George Pescott. Mr. W. J. Heslop, police-surgeon, said that there were marks on the neck of the deceased such as could be made by a towel twistened and tightened in the manner that had been described. The larynx had been fractured, and the cause of death was asphyxia. The jury returned a verdict of wilful murder against Pescott, and he was committed for trial at the next assizes on the coroner's warrant.

Oct. 9th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The New Sanatorium at Delamere Forest for the Open-air Treatment of Phthisis: the Foundation-stone laid by the Earl of Derby, K.G.

THE foundation-stone of the new sanatorium which is being erected at Delamere Forest, near Frodsham, as an accessory to the Liverpool Hospital for Consumption, was laid on Oct. 6th by the Earl of Derby, in the presence of a large and influential gathering, which included Lady Willox and Mr. W. P. Hartley, who jointly contributed the munificent sum of £15,000 towards the projected undertaking. The buildings in course of erection will be of a description suited to the open-air treatment of phthisis. The main block will contain medical officers' rooms, matron's rooms, and small sitting-rooms for special cases, with accommodation on the first floor for a limited number of patients. Behind this block will be the dining-hall, to which there will be no means of approach except through the open air; and behind that will be the block containing the kitchens and servants' apartments, similarly approached. The bulk of the patients will be housed in small detached blocks containing four or six bedrooms each, with the requisite baths and other accessories. These small blocks will be dotted about the estate in such positions and numbers as may be required. Attached to the main block and to each of the smaller blocks will be verandahs with a south or south-west aspect, so as to afford opportunities for rest and shelter in small companies. Each bedroom in the main block will communicate with a balcony upon which the patient's bed may be placed. The construction of the building will be of the simplest character. Fire-places in the rooms will not be required, as the principle of the treatment will be to keep patients as far as possible in the same temperature. Every arrangement has been made to favour the free circulation of fresh air. Mouldings and irregularities of surface will be carefully eliminated to prevent the accumulation of dust. Electricity will be largely utilised in the working of the sanatorium. A

pure water-supply can be obtained from various sources, including the Vyrnwy main of the Liverpool Corporation. Lord Derby, in an interesting speech, lauded the liberality of Lady Willox and Mr. W. P. Hartley and expressed the conviction that however useful such hospitals might prove to be, the scourge of consumption was to be exterminated rather by disseminating knowledge among the people as to the conditions for securing immunity from its ravages.

The Western Poor-law Conference: Meeting at Southport: Pauperism and Lunacy.

The meeting of the Western Poor-law Conference at Southport on Sept. 28th was presided over by Sir John T. Hibbert who thanked the Mayor for his kindly welcome to the conference. The Chairman remarked on the diminution of the number of paupers in Lancashire and Cheshire as compared with other English counties. 48 years ago the pauperism in England and Wales was 62·7 per 1000, while it was now only 25·4 per 1000. The number of out-door paupers had decreased from 955,000 to 580,000; child pauperism had decreased from 24·8 to 7·3 per 1000; the number of widows receiving out-door relief had decreased from 3·2 to 1·2 per 1000, and adult able-bodied pauperism had decreased from 13·2 to 3 per 1000. In spite of all the attractions of Poor-law infirmaries and improved workhouses, in-door pauperism had not increased in the same ratio as the population. When they considered that the drink bill for last year stood at £162,000,000, it could be easily understood why they still had a large army of paupers to deal with. Sir John Hibbert advocated classification in workhouses as far as possible, making the places comfortable for the old people and giving them every consideration, but not making them more comfortable than they would be outside. He made these remarks in view of the great financial difficulties in the way of providing old-age pensions. In Lancashire there was a decrease of pauperism last year, as compared with the average of five years, of 2617. In Cheshire there was a decrease of 926 for the same period. In Lancashire there were 18·5 paupers per 1000 of the estimated population, and in Cheshire 19·8, whereas in London the rate was 27·6, and in the west Midlands 27·4 per 1000. As to lunacy they had an unpleasant and difficult question to deal with. During the year the number of insane paupers had increased from 95,462 to 96 865, following a continual increase for the past 12 years. He would not say that it was due to increased lunacy; it was due largely to the removal of pauper lunatics from workhouses and other places to asylums, encouraged by the 4*s.* a week allowance made to the guardians. So far as he could gather from the reports of superintendents of asylums the increased number of lunatics to be cared for was attributable to the lower death-rate in their asylums consequent on improved surroundings, the excessive use of alcohol, the stress and competition of the age, overcrowding, and a gross neglect of hygienic conditions among the lower classes. He thought the incurable yet, perfectly harmless, cases might be cared for and treated in a less costly manner than at present. Mr. Burns, chairman of the West Derby Board of Guardians, read an interesting paper on the Proper Use of Workhouse Infirmaries, in which he advocated separating the hospital from the main body of the building, even at a considerable distance. He expressed his belief that the time was approaching when all hospitals established for the relief of the sick poor should be brought under the control of the State.

Medical Faculty, University College, Liverpool.

A commission in the Royal Army Medical Corps has been placed at the disposal of the above medical faculty by the War Office. I am informed that at the date of writing no application for the appointment had been received by the dean of the medical faculty.

Death of Mr. Charles Bowman Wilson, M.R.C.S. Eng., L.M. Dub.

The lamented death of Mr. C. B. Wilson took place to-day (Oct. 9th) at his residence, Abercrombie-square, at the age of 74 years. Mr. Wilson, who obtained the Membership of the Royal College of Surgeons of England in 1847, retired from the active practice of his profession about 15 years ago. Mr. Wilson was consulting surgeon to the Ladies' Charity and Lying-in Hospital and was formerly house surgeon at the old Liverpool Infirmary and vice-president of the Liverpool Medical Institution. The deceased gentleman was held in great esteem by his professional *confrères*, to whom he had endeared himself by his genial and kindly disposition and by whom his demise is greatly deplored.

Oct. 9th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Opening of the New Pavilion in the Edinburgh Royal Infirmary.

IT is announced that H.R.H. Princess Henry of Battenberg has consented to open the new pavilion which has just been added to the Edinburgh Royal Infirmary in commemoration of Her Majesty's Diamond Jubilee. The date of the ceremony will probably be Oct. 26th.

Opening of the Winter Session in Edinburgh.

The winter session of the medical classes in Edinburgh will open on Tuesday, Oct. 16th. Judging from appearances it looks as if clinical medicine were to be at a considerable disadvantage during the approaching session. At the end of the summer session one of the pavilions on the medical side was closed for cleaning, repairing, and re-draining, the idea being that it would be ready for re-occupation in a month. It is not ready yet and no one seems to know when it will be. Unless this can be speedily rectified it will have a most hurtful effect upon the medical school as a whole.

Lecture Hours in Edinburgh.

Six well-known lecturers on the practice of physic whose lectures are recognised as qualifying for the University of Edinburgh have united in drawing the attention of the University Court to the unsuitable hour (2 P.M.) which has been fixed for the lectures on the practice of physic during the coming winter session. They point out that the lecturers who have charge of wards in the Royal Infirmary and are engaged in the teaching of clinical medicine from 12 to 1.30 P.M. will not be at their best if required to lecture at 2 P.M., and, moreover, "it has been found that many students have great difficulty in giving their attention to any lecture at 2 o'clock." 9 A.M. is the lecture hour preferred by these gentlemen, so as not to interfere with the surgery and midwifery lectures.

The Glasgow Southern Medical Society.

The opening meeting of the Glasgow Southern Medical Society was held on Oct. 4th in the rooms of the Southern Medical Club, 18, South Portland-street. The following office-bearers were elected. Honorary President, Sir Hector Clare Cameron. President: Dr. William Watson. Vice-Presidents: Dr. John Stewart and Dr. William McMillan. Treasurer: Dr. Andrew S. Tindal. Secretary: Dr. John Fraser Orr. Editorial Secretary: Dr. Andrew Wauchope. Seal-keeper: Dr. John Coulson Howie. Extra Members of Council: Dr. Alex. C. McArthur, Dr. Duncan Macgilvray, and Dr. Alexander Roxburgh. Court Medical: Dr. Hugh Kelly, Mr. Robert H. Pavey, Dr. James W. Allan, Dr. Alexander Rankin, and Dr. Robert W. Forrest. Representative to Victoria Infirmary: Dr. Charles E. Robertson.

Oct. 11th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Queen's Visit to Ireland.

THE Queen has sent the following reply to the address which was presented by the Royal College of Surgeons in Ireland on the occasion of her visit to Ireland:—"I thank you heartily for the loyal and dutiful address which you presented to me during my recent stay in Ireland. It gave me a particular pleasure to receive the representatives of your distinguished profession, the reputation of which for skill and devotion to duty has lately been so conspicuously maintained under the severest tests." The reply was sent to the President of the College by Sir Matthew White Ridley, the Home Secretary.

Meath Hospital and County of Dublin Infirmary.

The medical session will open at the Meath Hospital on

Oct. 15th, when the inaugural address will be delivered by Dr. James Craig, physician to the hospital.

Convalescent Home for the Mater Misericordiæ Hospital, Dublin.

Beaumont, Drumcondra, has recently been purchased as a convalescent home in connexion with the Mater Misericordiæ Hospital. The grounds, extending over 110 acres, give ample facilities for the exercise of convalescent patients, and the house, which commands beautiful views, affords at present accommodation for about 50 patients. It is proposed later to increase the size of the buildings.

Belfast Public Health Committee.

Dr. Henry O'Neill, J.P., who was appointed by the corporation of Belfast as a delegate to represent them at some recent congresses, has just presented to the Public Health Committee a report on the inspection and sterilisation of milk as conducted by several municipal corporations. After pointing out the diseases liable to be conveyed by milk and the effect of its sterilisation, and the causes of diarrhœa (as due to unsterilised cow's milk) leading to a high infantile mortality, Dr. O'Neill quotes Dr. F. D. Harris, who says that during the past five years of the children under six months old who have died in St. Helens from diarrhœa 81 per cent. were bottle-fed. A very full account is given in Dr. O'Neill's report of the method employed at St. Helens, from Dr. Harris's recent paper read at the Ipswich meeting of the British Medical Association. He also mentions that it is proposed to erect a central sterilising milk station at Batignolles, near Paris, a point on the Great Western Railway of France where 43 per cent. of the total milk-supply of the capital arrives. Dr. O'Neill quotes Dr. James Niven on "The Improvement of the Milk-supply of Manchester," and concludes a very interesting report by recommending that the Public Health Committee of Belfast should appoint a sub-committee to consider the matter and to prepare such regulations as should enable those who may desire to do so to obtain an abundant supply of pure sterilised milk at small cost. He also suggests that two properly qualified female sub-sanitary officers should be appointed whose duties should be to visit and give instruction to persons who have the charge of infants regarding the proper feeding of children the birth of whom has been registered, to visit dirty houses and to endeavour to get the occupants to keep them clean, and to visit each house where a death from diarrhœa or enteritis has occurred and to investigate the cause of the death.

The Dietary Scale at the Belfast Workhouse.

The Infirmary Committee submitted their final report on the revision of the dietary scales in the Belfast Workhouse to the guardians at their weekly meeting on Oct. 2nd. It is expected that £1000 a year will be saved by the scheme which was adopted. It has yet to be approved by the Local Government Board.

The Forster Green Hospital for Consumption, Belfast.

From a recent interim report it appears that the hospital is able to deal with 120 or 130 cases per annum and that while some patients contribute to their support the financial condition of the hospital leaves much to be desired. Considering the great prevalence of phthisis in Belfast this hospital is greatly needed and should be properly supported.

Royal Victoria Hospital, Belfast.

Dr. Henry O'Neill, J.P., who has been on the surgical staff of the Royal Victoria Hospital for upwards of 20 years, has just resigned, owing to pressure of public and private duties. In addition to conducting a large practice Dr. O'Neill is a member of the Belfast City Council, and he has taken a great interest in questions of public health. He finds that his time is now so occupied that he is unable to give enough attention to hospital demands. If Dr. O'Neill devotes the additional time he will now have to the Public Health Committee he will do a thorough service to the city of Belfast. His hospital colleagues know his high ideals of duty and the enthusiastic way in which he did his work, and while they all regret his resignation they hope the city council will benefit by the extra opportunities which he will now have of furthering public health reforms.

Oct. 9th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Last Sign of Life.

REFERENCE was made in THE LANCET of Sept. 29th (p. 976) to Mr. Augustus D. Waller's method of ascertaining whether animal or vegetable tissues retained their vitality or not. The material to be tested is connected with a galvanometer; in circuit with it is a source of electro-motive force (battery) to oppose the accidental electro-motive force (current of rest) of the matter tested. This electro-motive force is adjusted exactly so as to bring the galvanometer needle to zero. A stimulus (e.g., induction shock) is thrown into the material under test and if it is alive it responds by an electrical disturbance (current of action). For distinct reactions with objects having a low resistance (for example, a reaction above 0·01 volt and a resistance less than 100,000 ohms) a galvanometer showing one-millionth of an ampère is sufficient. But for more delicate reactions with objects of high resistance (for example, a reaction below 0·001 volt, and a resistance above a megohm) a more sensitive galvanometer is indispensable. Mr. Waller ordinarily employs a Thomson's galvanometer with which one-ten-thousand-millionth of an ampère causes a deviation of five or six millimetres on a scale placed at a distance of two metres. A four-way key is introduced for the convenience of cutting out the galvanometer when the stimulus is applied and for cutting in the galvanometer immediately afterwards to let it feel the current of action. Dead matter gives no current of action but may show common polarisation. This is distinguished by the direction, polarisation currents being inverse to the stimulus and currents of action being direct. The electro-motive value of the reaction varies with the nature of the object, the intensity of the excitation, and the time which has elapsed before the establishment of the galvanometric circuit. It is ordinarily measured in hundredths and thousandths of volts; it is diminished more or less rapidly with the progressive extinction of vitality; it is entirely abolished by boiling.

Professional Secrecy.

It is becoming more and more difficult in France to lay down exactly what are the limits of professional secrecy, and all the more so as the interpretations given by different courts of justice vary and sometimes are contradictory. Hitherto the rule has been that professional secrecy is absolute and that nothing can dispense the medical man from the obligation, not even the permission or death of the patient. Despite this the Court of Appeal of Toulouse has just allowed a remarkable exception to this law, hitherto so strictly observed. The court gave judgment in a case involving the disposition of some property. One of the witnesses summoned was the medical attendant of the deceased who was also his personal friend. Counsel for the other side objected to the admission of the medical man's evidence as being a violation of professional secrecy. In opposition to this contention the court decided to admit the evidence as good, arguing that it contained two classes of facts—the one which had been obtained by the medical man in his capacity as friend, and which, therefore, had nothing to do with professional secrecy, the other which concerned the complaint of the deceased, which was a matter of public knowledge, for everyone in the district knew that he had died from morbus cordis, while the explanations furnished by the medical man with regard to the latter class of facts were necessary to allow him to justify certain matters as to which sundry witnesses had brought charges against him. This unexpected judgment provoked some very fair and just criticism on the part of Dr. Maurans, an expert in the matter, writing in the *Semaine Médicale*. Many men are at one and the same time both the personal friends and the medical attendants of their patients, and it is very difficult to draw a line between confidences given to the friend or to the professional adviser, and in order to avoid the danger of a medical man being charged with violation of professional secrecy it is much better to keep absolute silence. It is extraordinary also to see the Court of Toulouse laying down that, because the illness from which a patient is suffering is universally known, therefore his medical attendant is dispensed from the obligation of secrecy. Many medical men have been found guilty by different courts for having made known the nature

of the illness of their prominent patients, even though such knowledge was common property owing to notices having appeared in the daily press.

Theft in a Hospital by Resident Medical Officers.

A little scandal has just come to light at the Boucicaut Hospital. Two young resident medical officers who gave a dinner party to their friends in their rooms discovered at about one o'clock in the morning that they wanted something more for supper. Therefore to save themselves trouble they went into the hospital kitchen, where they found nothing. They then went to the larder, the door of which they forced in the best style of house-breaking. Having taken what they wanted they calmly proceeded to supper with their friends. In the morning the director of the hospital discovered the theft, which was of no consequence from a monetary point of view, but which from a disciplinary point of view could not be passed over, as if the theft had been committed by an ordinary hospital attendant he would without doubt have been sent to prison. One of the inspectors of the Assistance Publique attended to make inquiries at the hospital and gave the two young men some wholesome advice and fatherly admonitions. They impudently replied that however good their little joke had been the inspector was still more funny in making such a fuss about practically nothing. The inspector, who had meant to be kind, thereupon made a formal complaint and the director of the Assistance Publique promptly suspended the two young residents and forbade them to enter any hospital until further orders. The Association of Resident Medical Officers, accustomed to the indulgence which is readily granted to young workers, even when their amusements take a somewhat immoderate form, were much upset by this decision and entered a lively protest against the judgment of the director, although it was perfectly justifiable. It is much to be regretted that these young men do not keep their active expressions of solidarity for some more worthy object.

Oct. 9th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Canadian Medical Association.

THE thirty-third annual meeting of the Canadian Medical Association was held in Ottawa on Sept. 12th, 13th, and 14th, under the presidency of Dr. R. W. Powell of Ottawa, Dr. F. N. G. Starr of Toronto acting as secretary. Some 153 members were present, all the provinces of the Dominion being represented. Dr. W. B. Thistle of Toronto University read a paper on the Present Status of the Eliminative and Antiseptic Treatment of Typhoid Fever, pointing out that he had been persistently misrepresented by Professor Osler and others in his advocacy of this plan of treatment. He was at particular pains to show that he did *not* expect to get rid of the bacilli from the different organs of the body through the action of purgatives, but that the treatment hastened the exit of toxins generally and of bacilli from the walls of the intestines. Dr. Perry G. Goldsmith of Belleville, Ontario, reported an interesting case of sarcoma of the right nasal fossa, in which at the outset the patient complained only of headache and double vision. In discussing this paper Dr. R. A. Reeve, Toronto, emphasised the importance of examining the nasal cavities in all affections of the orbits. In his annual address the President hoped for the time when Canadian practitioners would be accorded privileges in the other colonies of Great Britain, referring to the present status of Canadian surgeons in South Africa, and pointing out the necessity of the whole profession throughout the Dominion of Canada hastening and facilitating in every possible way the furtherance of the cause of Dominion registration and the establishing of a Dominion Medical Council. He also endorsed the formation of a Medical Defence Association for the profession in Canada. An interesting address was that of Surgeon-Lieutenant G. Stirling Ryerson, the Canadian Red Cross Commissioner to South Africa, who upheld the magnificent work of the Royal Army Medical Corps in that campaign and also eulogised the hospital service, claiming that there was very little foundation for the charges of Mr. Burdett-Coutts. Dr. T. G. Roddick, M.P., complimented Dr. Ryerson very highly for his self-sacrifice in proceeding to South Africa at his own expense to further the cause of the Red Cross. He had also made it his business while in England recently to inquire from returning Canadian soldiers as to the management of the hospital service in South Africa, but from not a single one could he elicit any complaint that their treatment had been anything else than satisfactory. Sir James Grant of Ottawa delivered an able address on Our Race and Consumption, stating that it remained for the Anglo-Saxons to see whether they would be more successful in establishing themselves on this continent permanently than did the races which preceded them. In the absence of Dr. Allen McLane Hamilton of New York the President read, by request of the association, Dr. Hamilton's paper on the Recognition and Management of Tabes Dorsalis. In his experience with these cases he had found that syphilis was not responsible for more than 50 per cent. of them, and rest by suspension and persistent cauterisation of the back in his hands had produced good results in treatment. Dr. John Hunter of Toronto dealt with the physician's "Vaster Empire." It referred to the field for improvement in sanitary science, more particularly the construction of dwelling houses, churches, and public buildings under the joint supervision of an architect and physician. Education, social purity, and medical missions were also dealt with. The Address in Surgery, which has already appeared in the columns of THE LANCET, was delivered to a crowded assembly by Mr. Edmund Owen of London (England) and was listened to with marked attention. He was accorded a very cordial and hearty vote of thanks at the conclusion of his able deliverance. Dr. L. H. Warner of Brooklyn, N.Y., followed Professor Primrose of Toronto University, who had given an apt description of Kocher's method of excision of the tuberculous knee-joint.

Dr. Warner gave the formula of a new stain which he was using and which he found perfectly satisfactory. The blood specimen should be prepared in the usual way. The slides were heated in a hot oven to 98° C. Immerse for one minute in a 1 per cent. aqueous solution of methylene blue, washing in water, then in a 1 per cent. alcoholic solution of eosin, washing again in water, and then in a 1 per cent. solution of Bismarck brown. Dr. Shepherd of Montreal dealt with some experiences in the treatment of hernias, stating that he had now used chromicised catgut suture for several years with success. He never used a drain, but opened the wound if required with a probe and let out any accumulation of fluid. He had used rubber gloves in all abdominal operations for the past two years. A Case of Syphilitic Gummata of the Spinal Cord Successfully Treated by Enormous Doses of Iodide of Potash was the title of a paper reporting a case occurring in the practice of Dr. F. W. Campbell of Montreal. 500 grains of iodide of potash were given per day, commencing with drachm doses three times a day. The patient recovered complete control of his lower extremities. The Address in Gynæcology was a very practical one and was delivered by Professor Gardner of Montreal. It recounted mistakes made in diagnosis and treatment in both obstetrics and gynæcology occurring in his own practice as well as in that of his *confrères*. Dr. Clarence Webster of Chicago contributed an interesting paper on An Unnoticed Factor in the Production of Abdominal and Pelvic Disturbances in Women. He held that the abdominal and pelvic walls were the chief factors in retaining the several viscera in place. He described his operation for relief, which consisted in bringing the recti muscles into apposition. He first performed this operation in November, 1898, and since that time he had operated on 41 cases and the results had been entirely satisfactory in all. Mr. I. H. Cameron took exception to Dr. Webster reciting this as an "unnoticed" factor.

The Address in Medicine was delivered by Professor S. F. Shattuck of Harvard. It was an advocacy for specialism in medicine of a proper conception and character. In his opinion the field in medicine was so large that no one man could grasp it all in a life-time, hence the need for a division of labour as in other walks of life. He rather ridiculed the specialty of diseases of children, as if one for the young, why not one for the old? He thought that specialism had come to stay. Five operations for gastric hæmorrhage, one being a chronic case, were reported by Dr. Armstrong of Montreal. Dr. Lapthorn Smith read a valuable paper on the Modern Treatment of Retroversion and Prolapse of the Uterus. He considered ventro-fixation, if properly performed, especially when combined with amputation of the cervix and posterior colporraphy, to be the best method of fastening up the prolapsed and retroverted uterus. Gasoline as a Surgical Detergent was advocated by Dr. Bruce Riordan of Toronto. The field of

operation could be cleansed better with gasoline than with a brush and soap-and-water. It was especially valuable in machine accidents, where the parts were all smeared over with dirt and grease. It should not be used in any quantity near an exposed light. It could be employed with advantage in clearing sutures of débris. Dr. McPhedran of Toronto dealt with Dilatation and Prolapse of the Stomach. He had found massage and abdominal gymnastics of immense service in the treatment of these cases. Dr. B. E. McKenzie of Toronto spoke of physical training in connexion with spinal deformities, club-foot, &c. He had also found it advantageous in cases of hysteria and chorea. Dr. Roddick read the report of the committee on Inter-provincial Registration. The Dominion Medical Council when formed will have three representatives from each province, and then another school of medicine having legal status in the province of Ontario—the homœopaths—will also be given three representatives. Dr. Roddick will introduce his Bill at the next session of the Dominion Parliament.

Two interesting cases of cerebral abscess were reported by Professor Stewart of Montreal. In both a peculiar feature was noticed—viz., the inability of the patients to name any article when presented to them. Both cases proved fatal. A post mortem examination of the second case, which occurred in a girl, aged 22 years, who had had chronic ear trouble for a great many years, showed two abscesses, one skirting the upper margin of the temporo-sphenoidal lobe and the other about the centre of that lobe. Professor Stewart thought that when the "naming centre" was destroyed in that lobe this particular form of speech defect was present. Dr. H. H. Chown of Winnipeg reported two cases of Gangrene of the Leg following Typhoid Fever. In one case the disease began on the ninth and in the other on the eleventh day. Amputation was performed in both in the middle third of the thigh with recovery in both cases. Notes on Atropine was the title of a paper presented by Dr. R. D. Rudolf of Toronto. He found from experiments that atropine was a direct cardiac stimulant. It never ought to be given in doses above $\frac{1}{100}$th of a grain except in cases of emergency. Dr. Blackader discussed the paper and considered that strychnine and not atropine was the best cardiac stimulant. Dr. George H. Fox of New York gave a lantern slide demonstration on skin diseases, mostly syphilitic in their origin. In treating these he emphasised the importance of stopping treatment with mercury and iodide when the patient was run down and of building up the system before resorting again to the specific treatment. Dr. G. H. Burnham of Toronto told of his plan of treating diseases of the eye, especially syphilitic, by his combined plan of treatment with mercury and iodide internally and pilocarpine hypodermically. He stated that no such good results followed in any other line of treatment. He reported two cases successfully treated with permanent results. Mental Sanitation was the title of a paper contributed by Dr. R. W. Bruce Smith, assistant superintendent of the Brockville Asylum for the Insane. It dealt with the prophylaxis of the disease, and as much insanity was drawn from country life he thought that the country people should be educated to take more enjoyment in their domesticity.

Dr. H. H. Chown of Winnipeg was elected to the presidency and Dr. F. N. G. Starr was re-elected secretary. Winnipeg was chosen as the place of meeting in 1901. The Ottawa practitioners made excellent hosts; the excursion to Britannia on the Bay, the banquet at the Russell House, the luncheon at the Protestant Hospital, and the excursion to Rockcliffe Range on the adjournment of the meeting were thoroughly enjoyed by the visiting members of the Association.

During the progress of the meeting of the Canadian Medical Association a Canadian Anti-Consumption League was formed with his Excellency the Governor-General as honorary President and Sir James Grant of Ottawa as President.

Toronto, Sept. 27th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Alleged Abuses at the Coast Hospital, Sydney.

THE report of Dr. J. Ashburton Thompson, President of the Board of Health, N.S.W., on the operations of the Coast Hospital for the year 1899 has been presented to Parliament. During the year 2359 patients were treated, of whom 113 died. The average daily number of occupied beds was 224 25. The annual cost per bed was: for maintenance and treatment, £71 7*s.* 2½*d.*; for ambulance service, £5 17*s.* 2½*d.*; and for repairs, £½ 3*s.* 9*d.* The gross expenditure for the year was £17,807. Since this report serious charges have been made against the administration of this hospital and investigated by the Public Service Board. The assistant storekeeper at the Coast Hospital reported that the food supplied by the contractor was of inferior quality and often unfit for consumption by the patients. The head storekeeper was alleged to be in collusion with the contractor and the result of his subordinate's action in reporting the matter was the dismissal of the subordinate, who, however, pertinaciously insisted on an inquiry. The Public Service Board at last took evidence and has sent in a report to the Colonial Secretary. The Board found that the provisions supplied to the hospitals were uniformly bad, the fish being putrid, the vegetable decayed, and the vermicelli weevily. Rations were drawn for dead and discharged patients and brands of commodities inferior to those contracted for were supplied. The Board found that a certain officer had neglected his duty for months past and recommended that the storekeeper should be transferred to another position at a reduced salary, and that the assistant storekeeper should be paid three months' salary pending further consideration of the case. The Board declared that it was "clear that the whole management of the Coast Hospital is very lax." When the matter came before Parliament the Government was asked to appoint a Royal Commission to make inquiries into the supply of provisions, not only to the Coast Hospital, but all similar institutions. In the debate that followed Dr. Ashburton Thompson came in for criticism as the responsible head of the hospital.

The Plague.

After three weeks' immunity a fresh case of plague was reported in Sydney on August 9th and the Premier has instructed the President of the Board of Health to make special inquiries to ascertain the mode of infection in this case. In the meantime the Board of Health has notified many of the suburban municipalities that the services of rat-catchers are to be dispensed with. Fresh cases of plague continue to be found in Queensland. One fatal case occurred in Brisbane; another in Townsville. The other colonies have remained free from the disease so far. The Premier of New South Wales announced to Parliament that he proposed to send Dr. Tidswell, the assistant medical officer of health of the Board of Health, to the East and to Europe to study the most recent advances in the bacteriology of the plague and other infectious and epidemic diseases.

Sydney Hospital.

At the last monthly meeting of the board of directors of the Sydney Hospital a communication was received from the honorary medical staff protesting against the appointment of an honorary anæsthetist. *Inter alia* it was pointed out that between 1892 and 1899 anæsthetics had been administered 11,408 times with only one death. Considerable discussion also took place over the action of the Hospital Saturday Fund Association in withholding the amount allotted to the Sydney Hospital owing to the action of one of the collectors for the hospital in endeavouring to secure subscriptions direct to the hospital instead of to the association. The board resolved to write to the association deprecating the latter's action and requesting payment, and stating that the board had inquired into the action of the collector and found that no inducements had been held out to subscribers in excess of those provided for under the by-laws.

The Sydney Fresh Air League.

The annual meeting of the Fresh Air League was held in the Sydney Town Hall on August 27th and was largely attended. The report stated that during last season the committee had sent to the country 21 men, 93 women, 22 young people over 16 years and 98 under 16 years. A letter was read from Mr. P. Muskett suggesting that the League should enlarge its operations and establish a mountain sanatorium for the treatment of sick children and pointing out the appalling infantile mortality in Australia, no less than 37 infants under the age of two years dying every day, and that half of these deaths were probably preventable.

Nationalising the Medical Profession.

At a recent meeting of the Hawthorn (Victoria) Branch of the Australian Natives Association the question of nationalising the medical profession was discussed. It was stated that partially to introduce a measure to give free

medical attendance and drugs to everyone in the colony of Victoria would require 550 medical men and 130 dispensing chemists and would cost the State £300,000—or on an average 18*s.* 6*d.* per adult male in taxation. Under the arrangements of the friendly societies the average cost per member would be 24*s.* 6*d.* per head.

Dinner to Sir Thomas FitzGerald.

On August 16th about 80 members of the medical profession in Victoria entertained Sir Thomas FitzGerald at dinner on his return from South Africa where he had been serving as consulting surgeon with the Imperial Army Medical Corps. His Excellency the Acting Governor presided and proposed the health of Sir Thomas FitzGerald in a highly eulogistic speech. In replying Sir Thomas FitzGerald said that he had been struck with the very friendly relations which prevailed between the civilian and army surgeons; and with reference to the arrangements he could not understand Mr. Burdett-Coutts's charges. Everywhere he went he found the arrangements admirable.

A Medical Man Convicted of Procuring Abortion.

Mr. Michael Lyons Butler was charged at the Central Criminal Court with having used unlawful means to procure abortion, was found guilty, and was sentenced to five years' penal servitude.

Sept. 1st.

Obituary.

ROBERT STRAFFORD SMITH, M.D. R.U.I.

THE utmost sorrow was felt in Belfast on Friday morning, Oct. 5th, when it was announced that one of the most promising of the younger physicians of that city had died. Since the spring of the present year Dr. Smith had been suffering from recurring attacks of carbuncles of the neck which greatly lowered his strength. Under careful surgical treatment these had been got rid of, but about two weeks ago, after having been out at his work, he was obliged to return to bed with an obscure feverish attack and pains in the left leg simulating sciatica. Afterwards the pain extended to the other leg, and a careful examination of the blood in the laboratory of Queen's College showed no signs of any enteric mischief (absence of Widal's reaction) but an extraordinarily increased leucocytosis (60,000 leucocytes in a cubic millimetre), establishing the very serious diagnosis of septicæmia. Then the nervous system became involved, and, finally, evidences of septic pneumonia appeared. On Thursday night (Oct. 4th) he became unconscious and passed away on the following forenoon. The eldest son of a most distinguished physician (Dr. J. W. T. Smith, who died 10 years ago and who had an enormous consulting practice in the north of Ireland), Dr. Strafford Smith was educated at Queen's College, Belfast, and he graduated M.D. of the Royal University in 1882. He afterwards visited London and Vienna. Commencing practice in Belfast in 1885 he was first attached to the Ulster Hospital for Women and Children, but subsequently he joined the staff of the Royal Victoria Hospital where he was one of the physicians and also secretary of the medical and surgical staff. On the death of Professor Cuming he was appointed Lord Chancellor's Visitor in Lunacy. Dr. Smith was greatly liked both for his professional abilities and for his kind and sociable disposition. His death is particularly sad from the circumstance that he had been married only 18 months, and the greatest sympathy is felt for his widow who with a little son is left to deplore his premature death. The funeral took place on Sunday afternoon, when there was a large number of the members of the medical profession present to show a last token of respect. Unfortunately, owing to the University examinations in Dublin, several of the professors of Queen's College were unable to attend.

ALEXANDER STEVENSON, M.B., C.M. GLASG.

DR. STEVENSON of Ogle-terrace, South Shields, where he practised in partnership with Dr. James Drummond, died in Glasgow on Sept. 3rd after a short illness. Taken away at the early age of 31 years, almost at the commencement of what seemed a very promising career, he will be long remembered by his many friends as an earnest, skilful, and patient practitioner and an upright Christian man. His first start in life was in a lawyer's office, where he spent a year or two, and then turned his thoughts to the medical profession. He accordingly proceeded to the University of Glasgow, where he proved himself a diligent student and graduated with commendation as M.B. and C.M. in 1895. Dr. Stevenson spared no pains in qualifying himself for the practical work of his profession. He was never idle and in his native town of Dumbarton he was well known as a temperance advocate and religious worker. He has left a widow and one child.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—At the primary examination the following candidates passed in the subjects indicated:—

PART I.

Chemistry.—A. Bernfeld, Royal Free Hospital; A. G. Elsworthy, Charing-cross Hospital; M. S. Jevons; R. Khedkar, Bombay; and R. H. Rigby, Leeds.

Materia Medica and Pharmacy.—J. B. Bradley, Birmingham; E. C Curtis, Aberdeen; A. T. Greenhill, St. Bartholomew's Hospital; T. E. Johnson, London Hospital; R. Khedkar, Bombay; O' Millauro, Westminster Hospital; and J. M. Worswick, Manchester.

PART II.

Anatomy.—H. Archer, Leeds; St. C. G. Ballenden, Birmingham; H. A. S. Gover, St. Mary's Hospital; R. V. Khedkar, Bombay; F. C. R. M. Knight, Guy's Hospital; W. Lovell, St. Mary's Hospital; E. H. McMahon, Charing-cross Hospital; H. P. Margetts, St. Bartholomew's Hospital; S. Northwood, Birmingham; W. V. Pegler, Leeds; A. C. Stark, Westminster Hospital; S. H. Sugden, Manchester; R. W. Taylor, Leeds; M. L. Tyler, Royal Free Hospital; M. G. L. Walker, Leeds; and S. H. R. Welch, Charing-cross Hospital.

Physiology.—G. H. Almond, Cambridge; H. Archer, Westminster Hospital; St. C. G. Ballenden, Birmingham; E. W. C. Bradfield, St. Mary's Hospital; W. L. Crabtree, Leeds; H. A. S. Gover, St. Mary's Hospital; I. Griffith, London Hospital; A. F. Heald, Cambridge; H. S. Jones, Guy's Hospital; R. V. Khedkar, Bombay; F. C. R. M. Knight, Guy's Hospital; W. Lovell, St. Mary's Hospital; H. R. Scoones, St. Bartholomew's Hospital; C. M. Scott, Royal Free Hospital; J. B. Stephens, St. Mary's Hospital; M. L Tyler, Royal Free Hospital; and M. G. L. Walker, Leeds.

UNIVERSITY OF GLASGOW.—The following candidates have passed the first professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., botany; Z., zoology; P., physics; C., chemistry):—

Andrew Blair Aitken (B., P.), William Smith Allan (B., Z.), Andrew Allison (B., P.), Andrew Woodroffe Anderson (B., P.), Donald Arbuckle (P.), Robert James Arthur (B., Z.), John Bain (C.), Hugh Barr (B.), Allan Robertson Barrowman (B., P.), Archibald Grainger Bisset (B.), Charles Brown (P.), John Brown (C.), George Yuille Caldwell (B.), John Paterson Carmichael (Z.), Peter Carrick (B., Z.), Robert Buchanan Carslaw, M.A. (P., C.), William Smith Craig (C.), Robert Wilson Dale (B., P.), Thomas Thornton Macklin Dishington (Z., C.), Allan Campbell Douglas (B., P.), Charles Milligan Drew (B., Z., C.), Walter Duffy (B.), John Shaw Dunn (B., P.), John Ferguson (B., Z., P., C.), Charles Conway Fitzgerald (Z., C.), Edward John Fitzgerald (Z., C.), Hugh Harvey Fulton (B., P.), William Gilchrist (C.), William Harold Gillatt (P.), Joseph Glaister (B.), James Glover (P., C.), Alexander Graham (B., P.), David Livingstone Graham (B., P.), Donald John Gollan Grant (B., P.), Alexander Robertson Forrest Hay (B., Z., P.), James Waugh Hay (B., Z.), John Cochrane Henderson (Z., P., C.), Lawrence Hislop (B.), Ralph Howell (B., Z.), Alexander Hunter (C.), James Hunter (B., P.), Archibald Yuill Hutchison (B., Z., P., C.), Harry Stewart Hutchison (B., P.), Alexander Jamieson (B., C.), Arnold Ernest Jones (B., P.), Douglas Robertson Kerr (B., Z.), James Rutherford Kerr (B.), George Notman Kirkwood (Z., C.), Robert Wright Leckie (C.), Donald MacAulay (B., Z., P., C.), Ernest Bowman Macaulay (Z., C.), Thomas Symington Macaulay (B., P.), Donald Carmichael M'Cormick (C.), Joseph Glaister M'Cutcheon (B., C.), John Finlay Macdonald (B.), Neil M'Dougall (C.), James Boston M'Ewan (C.), Tom Duncan M'Ewan (B., P.), Duncan Macfadyen (B., P.), John M'Farlane (B., P.), Robert Macfarlane (B., P.), Alexander Stuart Murray Macgregor (B. P.), Milne M'Intyre (B., C.), Charles Gordon Mackay (B., C.), David James M'Leish (B., Z., P.), Norman Alexander Macleod (P.), Roderick Macleod (P.), Alexander Stewart M'Millan (P.), Matthew Thompson Drummond M'Murrich (B., P.), Norman Smith MacNaughtan (P., C.), Richard Cameron Macpherson (B., C.), William Main (P., C.), James Marshall (Z., C.), William Blair Morton Martin (B., P.), Andrew Meek (B., P.), John Moffatt (P., C.), William Struthers Moore (Z., C.), Gavin Denholme Muir (P.), John Muir (Z., C.), Macdonald Munro (B.), Frank Anderson Murray (B.), George Clement Nielson (B., P.), Thomas Orr (B., Z., P.), Howard Henderson Patrick (B., P.), Arthur Geoghegan Paxton (Z., C.), John Pearson (B., P.), John Clegg Pickup (B., Z.), Andrew Maclean Pollock (B., P.), Henry Sherwood Ranken (B., P.), Donald Ronald Reid (B., P.), Daniel Falconer Riddell, M.A. (Z., C.), Daniel Stevenson Richmond (P., C.), James Watson Richmond (C.), Alexander Robertson (B., P.), Berkeley Hope Robertson (C.), William Rolland (B., P.), John Macdonald Ross (P., C.), Edward Louis Sieger (P.), Robert Wilfred Simpson (P., Z.), Alexander Hunter Sinclair (Z.), Morrison Wood Smith (B., P.), James Alexander Somerville (Z.), James Stevenson (P.), Archibald Stewart (B.), William Stewart (Z.), William Craig Stewart (C.), William Templeton (Z., C.), James White Thomson (B., P.), Alexander M'Millan Watson (P.), Thomas Macknight Watt (C.), Archibald

Crombie West (B., P.), David Watson Wilson (P.).—Women: Bethia Shanks Alexander (Z., C.), Annie Agnes Baird (B., Z., P.), Roberta Campbell (B., Z.), Margaret Hardy (Z.), Agnes M'Phun (B.), Florence Mann (B., Z.), Jessie Emily Munro (P.), Edith Oversby (Z.), Jessie Deans Rankin (B., Z.), Harriett Rowland Louis Reid (P., C.), Margaret Eason Robertson (B., Z.), Jane Reid Shaw (B., Z.), Lily Smellie (Z.), Mary Spence (B., Z.).

The following candidates have passed the second professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., anatomy; P., physiology; M., materia medica and therapeutics):—

William Armitage (P.), Thomas Ballantyne (P., M.), Alexander Grey Banks (M.), Andrew Baxter (P.), Andrew Farm Bell (M.), James Campbell Bringan (A.), Robert Bruce (M.), Robert Bryson (P.), George Frederick Buchan (A.), Angus Campbell (M.), Robert Harold Campbell (A., M.), Alexander Adam Carruthers (A., P., M.), Robert Peploe Cartwright (A.), Walter Bartlett Chapman (A., M.), John Cairns Christie (P., M.), Samuel Campbell Cowan (A., P., M.), Ernest Hamilton Cramb (A.), Hugh William Crawford (M.), John Cross (P., M.), Alexander Dick (A., P., M.), William Dick (P.), Donald Douglas, M.A. (A., P., M.), Andrew Robertson Dow (A.), William Dow (A., P., M.), John Ferguson, M.A. (P.), Thomas Forsyth (A., P.), John Andrew Garden (A., P., M.), George Garry (A.), John Ritchie Gilmour (A.), John Miller Gordon (M.), John Andrew Hagerty (M.), Ronald Dingwall Hodge (P.), John Monnette Huey (M.), John Brown Dalzell Hunter (M.), Neil M'Coll Hutchison (P., M.), Ernest David Jackson (M.), George Rutherford Jeffrey (M.), William Fletcher Kay (M.), Andrew Miller Kerr (M.), William Henry Kirk (A.), Archibald Leitch (P.), Stanley Everard Lewis (A.), Thomas Lovett (M.), Daniel Douglas M'Dougall, M.A. (M.), Alexander Macintyre (M.), Ivy M'Kenzie, M.A. (A., P.), John Chancellor M'Kenzie (A., P., M.), Thomas M'Laren (P.), James Roy M'Vail (A., P.), Robert Harry Manson (A., P., M.), Harry Somerville Martyn, M.A. (A., P., M.), Robert Menzies (P., M.), Alexander John Mitchell (M.), John Muir (A., M.), James Stuart Nicolson (A., P.), David Penman (M.), Thomas Rankine (M.), John Mark Reid (M.), David Riddell (M.), William Robertson (P., M.), James Russell (A., P., M.), John Samson (M.), Robert Clemens James Schlomka (P., M.), Frank Donald Scott (M.), Malcolm Bernard Gathorne Sinnette (A.), John Williamson Smith (M.), Robert Cassels Smith (M.), John Stevenson (A., P., M.), John Barbour Stewart (P.), Robert Rennie Swan (A.), John Allan Thom (A., P., M.), John Restell Thomas, (A., M.), William Wagner Turner (A., P., M.), Robert Wallace (P.), Thomas Irby Wallace (P., M.), Robert Watson (M.), Alexander Brown Watt (M.), Peter Millar Waugh (A.), Robert Tait Wells, M.A. (A., P.), John Forrest Weston (M.), Joseph White, M.A. (A., P.), John Wilson (M.), Eldred Wright (M.), Watson Young (P.).—Women: Helen Stephen Baird, B.A. (A., P.), Jane Campbell (P., M.), Kate Fraser, B.Sc. (A., P.), Ethel Macleod Lochhead (M.), Martha Hunter Scott (M.), Edith Christine Wallace (P., M.).

The following candidates have passed the third professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (P., pathology; M., medical jurisprudence and public health):—

John Anderson (M.), Robert Wellwood Auld (M.), John Stoddart Barr (M.), Ernest Cecil Burnett (P., M.), Samuel James Cameron (M.), Andrew Currie (P., M.), John Shedden Dale (M.), David Beattie Davidson (M.), James Davidson, M.A. (P., M.), Gregor Hugh Grant Davie (M.), William Elder (P., M.), William Watt Farrar (P., M.), George Ferguson (M.), Duncan Johnston Fletcher (P.), William Gemmill (P., M.), Matthew Hunter (M.), David Kyle, M.A. (M.), Alexander Linn (P., M.), Frank Joseph Lochrane (M.) Joseph Paterson Lusk (P.), William Ferguson M'Glashan (P.), Hugh Archibald M'Lean (P., M.), Alexander M'Gaw M'Millan (P., M.), Allan Dixon Mitchell (P., M.), Samuel Johnston Moore (P., M.), John Morison (P., M.), Robert Orr (M.), James Nimmo Prentice (P., M.), Robert Ramsey (M.), John Walker Renton (P., M.), William Robertson, Kilmarnock (M.), James Crawford Ross (P., M.), James Smith (P., M.), Joseph Goodwin Tomkinson (M.), John Wright Turner (M.), Robert George White, M.A., B.Sc. (P., M.); James Wilson (P., M.).—Women: Martha Adams (P., M.), Janet Thomson Miller (P., M.), Alice Moorhouse (P., M.), Agnes Bankier Sloan (P., M.), Elizabeth Macfarlane Sloan (P., M.).

At the recent professional examinations for the degrees of M.B., Ch.B., the following candidates passed with distinction in the subjects indicated:—

First Examination.—In Physics and Chemistry—Robert B. Carslaw, M.A. In Botany and Physics—David J. M'Leish and William B. M. Martin. In Botany—John S. Dunn, Arnold E. Jones, Donald R. Reid, and Wm. Rolland. In Zoology—Jessie D. Rankin. In Physics—Tom D. M'Ewan, Duncan Macfadyen, Andrew M. Pollock, Alexander Robertson, and James W. Thomson. In Chemistry—John Bain, Charles M. Drew, James Glover, Donald MacAulay, and Berkeley H. Robertson.

Second Examination.—In Anatomy and Physiology—Joseph White, M.A. In Physiology—Donald Douglas, M.A., and Kate Fraser, B.Sc. In Materia Medica and Therapeutics—Alexander G. Banks, John C. Christie, John B. D. Hunter, George R. Jeffrey, Andrew M. Kerr, Daniel D. MacDougall, M.A., John Muir, and John M. Reid.

Third Examination.—In Pathology—James Crawford Ross. In Medical Jurisprudence and Public Health—John Stoddart Barr, Samuel James Cameron, and Robert Ramsey.

A MEDICAL PRACTITIONER STRUCK BY LIGHTNING.—The *Maryland Medical Journal* mentions that on August 13th Dr. W. H. Ravenscroft of Oakland, Garrett County, Maryland, was struck by lightning and rendered unconscious. His horse was stunned at the same time.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.—The following scholarships have been awarded: Entrance Scholarship, £30, to Miss J. Coupland; St. Dunstan Scholarship, value £60, to Miss Nora Smith.

ICE-CREAM.—The borough analyst of Plymouth having reported to the sanitary committee of that town in reference to the ice-cream sold in the streets, the sanitary committee has decided that premises where ice-cream is manufactured shall be registered and supervised by the sanitary authority.

VETERINARY SURGEONS AND JURIES.—The Hacherleigh (Devonshire) bench of magistrates on Sept. 25th, in revising the jury lists for the district, struck off the name of a member of the Royal College of Veterinary Surgeons, considering that members of that profession should be exempt from service.

VACCINATION AT BATH.—At the meeting of the Bath Board of Guardians held on Oct. 3rd it was reported that during the first eight months of this year there had been 1128 births, and of these children 658 had been successfully vaccinated, 99 cases were postponed, 67 had exemption certificates, and 154 had died.

NEW WORKHOUSE INFIRMARY AT ST. AUSTELL.—At the meeting of the St. Austell (Cornwall) Board of Guardians held on Oct. 5th Mr. Preston Thomas, of the Local Government Board, urged the guardians to provide a new workhouse infirmary for St. Austell instead of enlarging the old infirmary, as had been suggested. After a discussion it was eventually decided to erect a new building.

MEDICAL STUDENTS IN ITALY.—According to the *Supplemento al Policlinico* of Sept. 15th, during the last academical year the medical and surgical faculties of the Italian universities were attended by 6648 students distributed as follows: 2009 in Naples, 783 in Turin, 530 in Rome, 504 in Bologna, 496 in Pavia, 358 in Genoa, 309 in Padua, 270 in Palermo, 260 in Florence, 218 in Pisa, 152 in Modena, 167 in Catania, 175 in Parma, 128 in Messina, 81 in Siena, 75 in Cagliari, 54 in Sassari, 35 in Camerino, 29 in Perugia, and 15 in Ferrara.

SANITARY CONDITION OF DARTMOUTH.—At the meeting of the Dartmouth Town Council held on Oct. 2nd Mr. J. H. Harris, the medical officer of health, reported that the inspector of the Local Government Board had visited the town relative to the arrangements made to cope with an outbreak of plague. He added that there was no isolation hospital belonging to the council nor were there arrangements for disinfecting. Mr. Harris also complained of the scarcity of water. The report was eventually referred to a committee.

ATTEMPTED MURDER OF A MEDICAL MAN.—On Oct. 8th a murderous attack was made on Dr. Julius St. Thomas Clarke of Leicester. His assailant was a man named Kirby who fired four shots at him with a revolver as he was walking near Nelson-street. One of the bullets lodged in the lower part of Dr. Clarke's spine, but has not yet been extracted, and the patient's condition is unfortunately very serious. Kirby, who was immediately arrested and disarmed, has been in an asylum and is supposed to be insane. A later report has been received to the effect that Dr. Clarke's general condition is much more satisfactory.

LEICESTER INFIRMARY BOARD.—The quarterly meeting of the board of governors of the Leicester Infirmary was recently held at the institution, Mr. T. Fielding Johnson presiding. In presenting the usual financial statement the chairman said that there was a balance due to the treasurer on the joint account of the infirmary, fever-house, and children's hospital of £668 4*s.* 3*d.* At the commencement of the year the infirmary was indebted to the treasurer in the sum of £2195 and at the close of the last quarter this sum had increased to £4826, but thanks to the timely legacies of the late Miss Dalton this large deficit had been nearly wiped off, and it was hoped that by the collections in the churches and chapels, the workpeople's donations, and receipts from other sources, there would be a balance on the right side at the end of the year. Owing to the large increase in the number of operations it had been decided that a new operating theatre must be built which would

involve an expenditure of from £7000 to £8000. The report was adopted.

MEDICAL MAGISTRATE.—Mr. M. Cursham Corner, L.S.A., of Mile End-road, E., has been appointed a Justice of the Peace for the County of London, Tower Division.

THE EAST SUFFOLK HOSPITAL, IPSWICH.—Dr. W. A. Elliston, President of the British Medical Association, and Mr. B. Edwards have resigned their appointments on the honorary medical staff of the hospital. At an election held to fill the vacancies Dr. T. Warner and Dr. F. Ward were elected.

THE POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—A conference upon the Open-air Treatment of Phthisis will be held at St. Martin's Town Hall at 3 P.M. on Monday next, Oct. 15th, under the auspices of the managers of the Poplar and Stepney Sick Asylum District.

LITERARY INTELLIGENCE.—Messrs. Smith, Elder, and Co. announce a second edition in the press of the late E. J. Chance's "Bodily Deformities," Vol. I., brought up to date by John Poland, F.R.C.S. Eng. The hitherto unpublished Vol. II. on "Treatment," by the same author, will also be edited by Mr. Poland.—Messrs. W. B. Saunders and Co., medical publishers, Philadelphia, are opening a London Branch of their business at 161, Strand, W.C., for the sale of their medical publications in Great Britain and the Colonies.—Mr. Frederick Treves has written an account of his experiences in South Africa during the three months that the field hospital followed the relief column from Frere to Ladysmith. The record is based on notes written from day to day on the spot. The work, which is illustrated by a number of photographs, will be issued shortly by Messrs. Cassell and Co. under the title of "The Tale of a Field Hospital."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ALLARDICE, W. C., M.D. Glasg., has been appointed Certifying Surgeon under the Factory Acts for the Borough of Newcastle-under-Lyme, the Civil Parishes of Chesterton, Silverdale, Keel, and Madeley in the County of Stafford.

ANDERTON, W. B., M.B. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Second Resident Assistant Medical Officer to the Crumpsall Workhouse, Township of Manchester.

ASHBY, A., M.B. Lond., F.R.C.S. Eng., has been re-appointed Medical Officer of Health by the Reading Town Council.

BIRCHALL, E. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer to the Walton Workhouse, West Derby.

BLAKER, PERCY S., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the East London Hospital for Children and Dispensary for Women, Shadwell, E., vice Joseph Shardlow, resigned.

BODY, HENRY MARTEN, M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health by the Crediton (Devon) Rural District Council.

BROWNE, GEO., M.D., M.Ch. Irel., has been appointed Certifying Surgeon under the Factory Acts for the Ballynahinch District of County Down.

BROWN, J. PERCIVAL, M.B., Ch.B. Vict., has been appointed Junior House Surgeon to the Macclesfield General Infirmary.

BROWN, JOHN, M.D., D.P.H. Vict., has been re-appointed Medical Officer of Health for the Borough of Bacup.

CRAIG, JOHN, M.B., Ch.B. Edin., has been appointed House Surgeon to the Dumfries and Galloway Royal Infirmary.

DAWSON, W. E., L.R.C.P. Irel., L.S.A., L.M., has been appointed Resident Medical Officer, Tower Hamlets Dispensary, Stepney, E.

EVATT, JOHN E., M.B., B.S. Durh., has been appointed Demonstrator and Assistant Lecturer of Anatomy at the University College, Cardiff.

FISHER, CHARLES, M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Victoria Hospital for Children, Chelsea.

GEMMELL, SAMSON, M.D. Glasg., F.F.P.S. Glasg., has been appointed Professor of Clinical Medicine, University of Glasgow, vice McCall Anderson.

HALL, J. BASIL, M.C. Cantab., has been appointed Honorary Assistant Surgeon to the Bradford Royal Infirmary.

HARDING, R., L.R.C.P. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer of Health by the Kington Rural District Council.

KINGSFORD, LESLIE, M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Casualty Department of the East London Hospital for Children and Dispensary for Women, Shadwell, E., vice Percy S. Blaker, resigned.

LAURIE, LANGWORTHY, has been appointed House Surgeon to the Victoria Hospital, Bournemouth.

MACRAE, D. MACKENZIE, M.B. Glasg., has been appointed Resident Surgeon to the Wilts County Asylum, Devizes.

MAPLETON, HENRY BANBURY, M.A. Oxon., M.D., C.M. Edin., D.P.H. Lond., has been appointed Medical Officer of Health for Newton Abbot, Devon, vice Harvey, resigned.

MULES, P. H., M.D. Edin., M.R.C.S., has been appointed Ophthalmic Surgeon to the Wrexham Infirmary, vice D. Charnly, deceased.

PEARCE, D. A. C., M.D. Lond., B.S., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer of the Bridge Union, vice L. A. Winter, resigned.

PLUMLEY, ARTHUR GEORGE GRANT, M.B. Lond., M.R.C.S., L.R.C.P., L.D.S. Eng., has been appointed Dental Surgeon to the Clayton Hospital and Wakefield General Dispensary.

RUBRA, H. H., M.D. Brux., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Anæsthetist to the Great Northern Central Hospital, Holloway-road, N.

SCOFIELD, H. C. L., M.B., C.M. Edin., B.Sc., has been appointed Medical Officer to the Children's Home, Peckham Rye, S.E.

SISSONS, A. T., M.B., B.Ch. Vict., has been appointed First Resident Assistant Medical Officer to the Crumpsall Workhouse, Township of Manchester.

SLATER, B. H., M.B. Camb., M.R.C.S., L.R.C.P., has been appointed Honorary Assistant Surgeon to the Bradford Royal Infirmary.

STURDY, H. CARLILE, M.B. Durh., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the East London Hospital for Children and Dispensary for Women, Shadwell, E., vice S. Vere Pearson, resigned.

THOMPSON, WILLIAM, has been appointed Public Analyst for the Borough of Stockport.

WALLACE, J. SIM, M.D., B.Sc., L.D.S., has been appointed Assistant Dental Surgeon to the National Dental Hospital, London, W.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH EASTERN DISPENSARY.—Resident Medical Officer. Salary £130 per annum, with furnished apartments, coals, gas, and domestic attendance.

BRADFORD ROYAL INFIRMARY.—House Physician for 12 months, unmarried. Salary £100 per annum, with board and residence.

BRISTOL CITY HOSPITALS.—Resident Medical Officer for the Ham-green Fever Hospital, Bristol, for one year. Salary £100 per annum, with board, lodging, and washing.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary £50 per annum, with board and residence in the hospital.

CHELTENHAM GENERAL HOSPITAL.—House Surgeon for two years, unmarried. Salary £80 per annum, with board and apartments.

CHILDREN'S HOSPITAL, Nottingham, St. Peter's Church Walk, Nottingham.—House Surgeon (non-resident) for six months. Salary at the rate of £100 per annum.

CITY OF LONDON ASYLUM, near Dartford, Kent.—Second Assistant Medical Officer and Pathologist, unmarried. Salary £150 a year, with board (except liquors), furnished apartments, washing, and attendance. Apply to the Clerk to the Visiting Committee, Guildhall, London, E.C.

CORNWALL COUNTY ASYLUM, Bodmin.—Junior Assistant Medical Officer, unmarried. Salary £120, rising to £150 by £10 annually, with board, furnished apartments, &c.

CORPORATION OF BIRMINGHAM CITY FEVER HOSPITAL, Lodge-road.—Second Assistant Medical Officer. Salary £120 per annum, with board, residence, &c.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer. Commencing salary £125 per annum with the usual allowances.

COUNTY BOROUGH OF CROYDON, CROYDON BOROUGH HOSPITAL.—Resident Medical Officer for the Croydon Borough Hospital for Infectious Diseases, for one year. Salary £120 per annum, rising to £140 at the end of six months, with board and residence.

DERBY COUNTY ASYLUM.—Second Assistant Medical Officer. Salary commencing at £110 per annum, rising to £130, with board, lodging, and washing. Apply to Medical Superintendent, County Asylum, Mickleover, Derby.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

FRENCH HOSPITAL AND DISPENSARY, 172, Shaftesbury-avenue, London.—Resident Medical Officer (not a female), speaking French, unmarried. Salary £80 a year, with full board.

GLASGOW CORPORATION, POLICE DEPARTMENT.—Assistant to the Bacteriologist in connexion with the Health Department of the City for six months. Salary at the rate of 3 guineas per week. Apply to the Clerk of the Corporation Police Department, City Chambers, Glasgow.

HULL CITY AND COUNTY LUNATIC ASYLUM.—Second Assistant Medical Officer for the Asylum at Willerby. Salary £150 per annum, with board, apartments, and washing. Apply to the Town Clerk, Town Hall, Hull.

HULME DISPENSARY (not Provident), Dale-street, Stretford-road, Manchester.—House Surgeon. Salary £150 a year, with apartments, attendance, coal, and gas.

JARVIS' CHARITY, Staunton-on-Wye, Hereford.—Medical Officer, to reside in house provided with garden and good stabling rent free. Salary £150 per annum and certain allowances. Apply to the Correspondent, Bredwardine Vicarage, Hereford.

LEICESTER INFIRMARY.—House Surgeon. Salary £120, rising £10 annually until the third year. Board, apartments, and washing provided.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Resident Medical Officer for six months. Board and residence in the hospital and washing provided, and an honorarium given at the rate of 50 guineas per annum.

NORTHERN DIVISION OF SOUTH UIST.—Medical Officer. Salary £77 10s. Apply to Mr T. Wilson, Solicitor, Lochmaddy, Clerk.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London.—Surgeon to Out-patients. Candidates must be F.R.C.S.

PARISH OF SLEAT.—Medical Officer and Public Vaccinator. Salary £100 per annum. Apply to the Clerk to the Parish Council, Kyleakin, Skye.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, London.—Assistant Resident Medical Officer for four months. Salary at the rate of £50 per annum, with board, residence, and washing.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £80, with board, lodging, and washing.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Salary at the rate of £40 per annum, with board, lodging, and washing.

ROYAL HALIFAX INFIRMARY.—Third House Surgeon, unmarried. Salary £80 per annum, with residence, board, and washing.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, London.—House Physician for six months. Salary at the rate of £40 per annum, with furnished apartments, board, and washing.

ROYAL ISLE OF WIGHT COUNTY HOSPITAL, Ryde.—Resident House Surgeon. Salary £70, and a fee of £10 for annual course of lectures to nurses.

ROYAL SEA BATHING HOSPITAL.—Resident Surgeon. Salary £100, with board and residence. Apply to the Secretary, Royal Sea Bathing Hospital, Offices, 30, Charing-cross, London.

ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Assistant House Surgeon for six months. Salary at the rate of £50 per annum, with rooms, board, and washing.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—Assistant Surgeon.

SOUTH LAMBETH, STOCKWELL, AND NORTH BRIXTON DISPENSARY, Wilkinson-street, Albert-square, Clapham-road.—Vacancy in the Consulting Medical Staff.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, London.—Two Honorary Physicians. Apply to the Honorary Secretary, 23, Gordon-street, Gordon-square, W.C.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, London.—Clinical Assistant for three months in the Out-patients' Department.

STOURBRIDGE DISPENSARY.—House Surgeon. Salary £120 a year, yearly increasing by £5 to £130, with furnished rooms, coal and gas, and an extra allowance of £25 for travelling expenses. Apply to the Hon. Secretary, The Firs, Norton, Stourbridge.

SUNDERLAND INFIRMARY.—House Physician and House Surgeon. Salary £80, rising £10 annually to £100, with board and residence.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon for six months. Salary at the rate of £30 per annum, with board, lodging, and laundry.

THE CHIEF INSPECTOR OF FACTORIES gives notice of vacancies for Certifying Surgeons under the Factory Acts at Abercrave, in the county of Brecknock; at Knighton, in the county of Hereford; and at Bexhill, in the county of Sussex.

TIVERTON INFIRMARY AND DISPENSARY, Devon.—House Surgeon, unmarried. Salary £80, and board, lodging, and washing.

VENTNOR ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Assistant Resident Medical Officer, unmarried. Salary £100 per annum, with board and lodging in the hospital.

WARNEFORD ASYLUM, Oxford.—Assistant Medical Officer.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Physician for two years. Salary £100 a year, with board, lodging, and washing.

WORCESTER GENERAL INFIRMARY.—House Surgeon for three years. Salary £100 per annum, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

POTTS.—On Oct. 5th, at the Bethnal Green Infirmary, the wife of W. J. Potts, M.D., of a son.

THOMSON.—On Oct. 9th, at 14, Coates-crescent, Edinburgh, the wife of John Thomson, M.D., F.R.C.P. Ed., of a son.

WARD.—On Oct. 4th, at Milton Cottage, Wokingham, the wife of Ernest Ward, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

CAMPBELL—SHERWOOD.—On Oct. 9th, at Christ Church, Streatham Hill, by the Rev. C. S. Nicholl, M.A., vicar, assisted by the Rev. H. Curtis, M.A., vicar of the Church of the Ascension, Balham, John William Campbell, M.D. (Paris), M.B. (Camb.), of Mentone, to May, only daughter of N. N. Sherwood, Esq., of Dunedin, Streatham Hill.

GODSON—ENTWISLE.—On October 3rd, at the parish church, Cheadle, Cheshire, by the Rev. J. Godson, M.A., vicar of Ashby-Folville, rural dean, the Rev. N. Brady, M.A., rector of Wennington, uncles of the bridegroom, and the Rev. F. A. Macdona, M.A., rector, John Herbert Godson, B.A., M.B., B.C. Cantab., D.P.H. Camb., second son of Alfred Godson, M.A., M.B., M.C. Cantab., J.P., of Cheadle House, Cheadle, to Alice Maude Grace, the youngest and only surviving child of the late Thomas Entwisle, of Linden House, Cheadle.

MILLAR—TERRY.—On the 10th inst., at St. John the Baptist's, Crawley, by the Rev. Herbert Barrett Lennard, Alexander Fleming Millar, M.R.C.S., L.R.C.P. Lond., eldest son of Alexander Millar, of Hollyhurst, Clapham Common, to Amy, younger daughter of Thomas Terry, of Albany House, Crawley.

DEATHS.

LOWSLEY.—On Oct. 4th, at Eldon-square, Reading, Oded Lowsley, M.R.C.S., L.S.A., in his 62nd year.

MILSON.—On Oct. 9th, at his residence, 88, Finchley-road, South Hampstead, Richard Henry Milson, M.D., only son of the late Richard O. Milson, surgeon, of Swineshead, Lincolnshire, in his 63rd year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

SECRET COMMISSIONS AND THE MEDICAL PROFESSION.

WE have upon previous occasions expressed our opinion that the outcry against secret commissions in the medical profession was greatly exaggerated. There can be no doubt that they are offered but even the offering is somewhat rare. However, a particularly flagrant instance has been sent to us by a prominent medical man. It consists of two circulars the one of which we print. The "enclosed circular" is one referring to the Thermal Springs of New Zealand.

"PRIVATE.—An Honorarium of Five per cent. will be paid to Medical gentlemen on completion of all successful business introduced by them.

237, EARLSFIELD-ROAD, S.W.

DEAR SIR,

Permit us to call your attention to the enclosed Circular.

The *Curative properties of the Thermal Springs of New Zealand* are comparatively unknown in England. All the facts contained in the Circular are based on Dr. Ginder's and other Medical Officers' Report to the N. Z. Government, which will be found in detail, with analysis of the Springs, in the Official Year Book of the New Zealand Government for 1899 and previous years; the London publishers are Messrs. Eyre and Spottiswood.

We trust this communication will receive your approval and commendation.

Your Obedient Servants,

J. BASTOW & SON."

We should like to point out to the New Zealand Government that if it wishes to exploit the Springs, as no doubt it does wish and has every right to do, this is the very worst way to set about it.

A POINT OF ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—I have been giving first-aid lectures to the local fire-brigade in accordance with Fire Brigade Union. This union confers the Red Cross badge on those surgeons who deliver three different courses of lectures to as many fire-brigades. To complete the series and secure the badge I must deliver lectures to brigades to two of my opponent's fire-brigades. What course am I to adopt? The firemen will have to come over to this village for each lecture.—I am, Sirs, yours faithfully,

Oct. 9th, 1900. VERITAS.

*** If we understand "Veritas's" letter it would seem that his "opponents" (does he mean his brother practitioners?) will require his fire-brigades as audiences before they can obtain their badges, in which case they will not be likely to object to "Veritas" lecturing to their fire-brigades that he may obtain his badge. "Veritas" is advised to communicate with his "opponents" and ascertain their views.—ED. L.

A CONFLICT OF EVIDENCE.

AT Cardiff Police Court on Oct. 2nd, Dr. Frederick W. Evans of Charles-street was summoned for furious driving on the information of two police constables who stated that on Sept. 26th they saw him driving along Cathedral-road at a rate of about 13 or 14 miles an hour. The evidence of Dr. Evans and his coachman was to the effect that the pace hardly, if at all, exceeded 10 miles an hour, and their estimate would in the opinion of persons accustomed to horses be entitled to some weight. From the constant use of the gig which is such a feature in the country practitioner's daily work he is likely to be a better judge of distance and speed than a city policeman. The magistrates however preferred the police evidence and fined Dr. Evans 10s.

"MOTOR-CARS FOR MEDICAL MEN."

To the Editors of THE LANCET.

SIRS,—The gist of Mr. Hirsch's experience with a motor-car is embodied in the last three lines of his letter in THE LANCET of Oct. 6th, p. 1048: "Motor-cars are certainly very useful but liable to get out of order, and I question whether I would buy one again with my present experience." Just so, and I would advise medical men to ponder well before purchasing a machine, costly as well as uncertain. To a medical man time and punctuality are both of value, and it is no joke to "jack up" at a critical moment, for there is always the glorious uncertainty of never knowing whether you will have to leave your car at some road-side inn and get home by rail or be towed home or not. Just at the present time there has been a "boom" in car buying by a public ignorant of the intricate machine they are investing in and only waking up after possession to disappointment. There are many who suppose the only thing you have to do is to jump up, turn on a cock, and off you go? Far from it, you must be prepared for ever-recurring breakdowns. I have joined an automobile club in the town in which I reside and have during the past six months had many opportunities of noting the capers of motor-cars of various kinds and I find too many patients in hospital to please me. I am now an on-looker and patiently waiting events. Perhaps I may be

told I may wait till my coffin is ordered, like the man who in the old days waited for improvement in bicycles, but to "dabble" in motor-cars requires a deeper pocket than bicycles and all doctors are not rich. One great element of failure in my opinion is the rage for excessive speed. By a medical man whose work is mixed country and town the first question asked should be not "how fast will it go," but "how slow." We know they can go fast. The steam-cars are the only ones in which the speed can be regulated to a crawl, but they, too, have their drawbacks and require excessive care, though I think they will prove the "survival of the fittest" in the end. The truth is, the solution of the problem of road motor traffic is a much harder nut to crack than was at first supposed and I fear we shall have to wait some time before we can approach anything like perfection in any system, either oil, steam, or electrical, and the horse will for a yet long time successfully compete with his rivals. Mr. Hirsch is to be congratulated in that he successfully accomplished his journeys. Perhaps it was as much due to good luck as good management, similar to my own experience with the bicycle, only getting one minute tyre puncture in covering nearly 3000 miles of road.

I am, Sirs, yours faithfully,

Oct. 8th, 1900. MOTOR-CAR.

To the Editors of THE LANCET.

SIRS,—Medical men who contemplate investing in a motor-car are under an obligation to Mr. Hirsch who gives his experience in THE LANCET of Oct. 6th. I have thought that a steam car would be more suitable for medical work. Will any of your readers who have used these cars kindly give their experience?

I am, Sirs, yours faithfully,

Stockwell-road, S.W., Oct. 8th, 1900. R. J. HEATLY, L.R.C.P. Irel.

"A GHOSTLY JOKE."

THE *Indian Medical Record* is responsible for the following story:—Dr. McTavish of Edinburgh was something of a ventiloquist, and it befell that he wanted a lad to assist in the surgery who must necessarily be of strong nerves. He received several applications, and when telling a lad what the duties were, in order to test his nerves he would say, while pointing to a grinning skeleton standing upright in a corner: "Part of your work will be to feed the skeleton there, and while you are here you may as well have a try to do so." A few lads would consent to a trial and received a basin of hot gruel and a spoon. While they were pouring the hot mass into the skull the doctor would throw his voice so as to make it appear to proceed from the jaws of the bony customer, and gurgle out: "Gr-r-r-gr-h-gh! That's hot!" This was too much, and without exception the lads dropped the basin and bolted. The doctor began to despair of ever getting a suitable helpmate, until a small boy came and was given a basin and a spoon. After the first spoonful the skeleton appeared to say: "Gr-r-r-uh-r-hr! That's hot!" Shovelling in the scalding gruel as fast as ever the boy rapped the skull and impatiently retorted: "Well jist blew on't, ye auld bony!" The doctor sat down on his chair and fairly roared, but when the laugh was over he engaged the lad on the spot.

"THE MOUNTING OF MUSEUM SPECIMENS."

To the Editors of THE LANCET.

SIRS,—F. A. W. (THE LANCET, Oct. 6th, p. 1048) will find useful information in the St. Bartholomew's Hospital Reports, vol. xxxiii., 1897, pp. 236-240, *re* mounting museum specimens.

I am, Sirs, yours faithfully,

Cardiff, Oct. 6th, 1900. ELDON PRATT.

A WARNING TO PARENTS.

AT Porth, on Oct. 5th, a woman was charge with having allowed her child to go into the public street while suffering from diphtheria. The proceedings were taken at the instance of Mr. J. Herbert Jones, medical officer of health to the Rhondda Urban District. The evidence showed that the child was notified on August 23rd as suffering from diphtheria and the usual instructions were immediately given to the mother, but on the following day and on subsequent occasions the sanitary inspector found the child out of doors. Since that time four cases of diphtheria had been notified from the street in question. A fine of 30*s.* and costs was inflicted, making £2. 0*s.* 6*d.* in all.

THE MORALITY OF CHEATING.

THE immortal Joseph Surface has many followers, but we think that the following case shows a height of impudence combined with a profession of "duty to one's neighbour" which has rarely been reached. Mr. Charles Theodore Brooks is a dispensing chemist living in Lower Edmonton. Of him Mr. A. L. Bridge, an inspector under the Food and Drugs Acts, purchased some mercurial ointment which was found to be deficient in mercury to the extent of 34·67 per cent. It also was made from lanolin instead of lard or suet. Mr. Brooks appeared to explain this little matter on Oct. 4th at the Tottenham Sessions. According to Mr. Bridge the accused had stated in conversation that there was no lard in the ointment because he (Brooks) was a Buddhist and must not handle pig's fat. Mr. Brooks, however, informed the Bench that he merely spoke of lard in an ironical manner. There was lard in his ointment. It was sold for animal purposes and therefore would not be in accordance with the British Pharmacopœia. Mr. Brooks has a proper feeling for his fellow creatures. He explained the slight deficiency in the quantity of mercury by arguing that there would be great danger in selling pure mercurial ointment, for it was a very deadly poison. As a further illustration he would say that a man once asked him for some pure carbolic acid. He supplied him with diluted carbolic acid, which the man drank, and the fact of the dilution saved the man's life. The bench, however, were hard-hearted and fined Mr. Brooks 5*s.* and 12*s.* 6*d.* costs. Mercurial ointment, in their opinion, meant the ointment of the British Pharmacopœia. Mr. Brooks sorrowfully said that the bench must take the responsibility. It was a deadly poison.

A NEW WOOD FOR STREET PAVING.

WE have received a specimen block of a wood introduced by Mr. E. Alcott of California, which is being tried in various districts of London for paving the roadways. The wood is called "red gum," and is apparently well adapted for the purpose of making a roadway. It is very dense and fine-grained, in fact the cut cross grain shows an almost velvety surface. It is said not to be absorbent and to have the faculty of binding, so that rain or the washings from horse-dung and urine will have no chance of sinking between the blocks. A section of Piccadilly is at present being laid with this wood and it will be interesting from a sanitary point of view to see how it wears. Probably, however, as soon as it is laid down it will be grubbed up again by the Post Office, the National Telephone Company, an electric lighting company, a water company, a gas company, or a hydraulic power company, and so will not be fairly tested. The sight of a newly-paved roadway is irresistible for such bodies and at present there is no law to stop the annoyance caused by them. We have not heard whether the wood is submitted to any treatment other than ordinary seasoning, but the specimen submitted to us smells strongly of acetic acid, a condition which of course may be accidental.

THE POWERS OF A RURAL SANITARY AUTHORITY.

To the Editors of THE LANCET.

SIRS,—Would you be good enough to inform me in THE LANCET whether a rural sanitary authority has a right to place meters at private houses if they believe that the water has been wasted, and also if they can do it without the consent of the owner of the house?

I am, Sirs, yours faithfully,

Oct. 4th, 1900. WILLIAM MASON, M.O.H.

*** Unless the right to do so has been acquired by agreement as a condition of supply we do not believe that such right exists.—ED. L.

CHANGE-RINGING.

CAMPUS writes:—"Will some reader of THE LANCET who is acquainted with the exercise of change-ringing on church bells kindly give his opinion of the effect of the exercise on health produced by the regular extension of the arms above the head, the position of the body, the mental alertness in observing the moving ropes, counting the place, and remembering the course of the method being rung?"

Practitioner.—Such circulars are highly objectionable but we do not think that the General Medical Council has power to punish their disseminators. There would be no objection, if the practitioner in question is known to spread them broadcast, to writing to the university or corporation to which he belongs and inviting an opinion upon his conduct.

Northumbria.—The essence of the matter rests in the terms of the burial order. A coroner has an undoubted right to direct a burial without an inquest, but if such direction be improperly given complaint can be made to his superiors, by whom the *bonâ fide* exercise of his discretion would be upheld unless there were very grave cause to the contrary.

Vincit Veritas should write to the Pharmaceutical Society and the Society of Apothecaries of London.

During the week marked copies of the following newspapers have been received: *Yarmouth Journal, Manchester Courier, Public Health Engineer, Northern Daily Telegraph, Blackburn Standard, Birmingham Daily Gazette, Dundee Courier, Times of India, Pioneer Mail, Nottingham Daily Guardian, Framlingham Weekly News, Lancashire Daily Post, Indian Daily Telegraph (Lucknow), Bradford Observer, Glasgow Herald, Leeds Mercury, Citizen, Architect, Builder, Scotsman, Liverpool Daily Post, Manchester Guardian, Baptist, Bristol Mercury, Sanitary Record, Yorkshire Post, South Eastern Gazette, Oxford Chronicle, West Sussex Gazette, Carpenter and Builder, Mark Lane Express, St. Andrews Citizen, Fife News, Leicester Post, Auckland Chronicle, Jackson's Oxford Journal, City Press, Hastings News, Reading Mercury, Herefordshire Mercury, Mining Journal, Blackpool Times, Local Government Chronicle, Huddersfield Examiner, Liverpool Journal of Commerce, Surrey Advertiser, Birmingham Daily Mail, Local Government Journal, Stockport Advertiser, Grimsby News, Northampton Herald, Warehouseman and Draper, Cromer Post, Plumber and Decorator, Weekly Free Press and Aberdeen Herald, Devon Weekly Times, Watford Leader, Hereford Times, South Shields Free Press, Derby Standard, Hampshire Independent, Lowestoft Standard, People, Ayr Advertiser, Northampton Daily Chronicle, Worcester Journal &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 11th, 1900.

Date	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Rainfall	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Oct. 5	29·81	WSW	0·33	102	63	51	51	55	Cloudy
,, 6	30·00	S.W.	0·08	98	66	54	56	58	Cloudy
,, 7	30·18	S.W.	....	112	71	58	60	64	Fine
,, 8	30·19	SSW	....	111	76	53	57	61	Fine
,, 9	30·15	WSW	....	109	76	60	62	64	Hazy
,, 10	30·06	N.W.	0·01	90	63	57	54	57	Overcast
,, 11	30·20	W.	....	89	52	45	45	47	Hazy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

WEDNESDAY (17th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.). Cancer (2 P.M.)

THURSDAY (18th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.) University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

FRIDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.).

SATURDAY (20th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (16th).—PATHOLOGICAL SOCIETY OF LONDON (20 Hanover square, W.).—8.30 P.M. Dr. Churton: A Case of Pulmonary Valvulitis.—Dr. Poynton and Dr. Paine: The Etiology of Rheumatic Fever (lantern demonstration).

CHELSEA CLINICAL SOCIETY (Holy Trinity Parish Hall, Pavilion-road, Sloane-square, S.W.).—8.30 P.M. Dr. W. Ewart: A Clinical View of some of the Mechanisms of the Heart and its Valves. (Presidential Opening Address.)

WEDNESDAY (17th).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. F. W. W. Baker: Exhibition of Sides and Models of Skin Structure. 8 P.M. Paper:—Report on the Recent Foraminifers of the Malay Archipelago.

THURSDAY (18th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Patients and Card Specimens. 8.30 P.M. Papers:—Mr. Nettleship: Cases of Blindness from Bullet-wound of the Orbit.—Mr. C. North: Orthoptic Treatment of Convergent Strabismus.—Mr. R. D. Batten: "Eclipse Blinding," with Choroido-retinitis and Obstruction of a Retinal Artery.—Dr. D. Wood: Case of Cysticercus in the Eye.

FRIDAY (19th).—SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (11, Chandos-street, Cavendish-square, W.).—5.30 P.M. Cases will be shown by Dr. D. B. Lees, Dr. J. Taylor, Dr. G. A. Sutherland, Dr. G. Carpenter, Dr. J. H. Sequeira, Mr. R. Clement-Lucas, Mr. A. H. Tubby, and Mr. S. Stephenson.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (15th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. M. Morris: Consultation. (Skin.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital W.).—5 P.M. Dr. Abraham: Some Skin Affections.

TUESDAY (16th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Sir W. H. Broadbent: Consultation. (Medical.)

WEDNESDAY (17th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. J. Cantlie: Consultation. (Surgical.)

LONDON THROAT HOSPITAL (204, Gt. Portland-street, W.).—5 P.M. Dr. F. Potter: Examination of Larynx. (Post-graduate Course.)

THURSDAY (18th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Robinson: Vulval and Vaginal Discharges.

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Hutchison: Infant Feeding.

CHARING-CROSS HOSPITAL.—4 P.M. Mr. S. Boyd: Surgical Cases in the Wards. (Post-graduate Course.)

CENTRAL LONDON THROAT, NOSE AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Dr. W. Wingrave: Morbid Anatomy and Pathology of the Pharynx.

FRIDAY (19th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. St Clair Thomson: Consultation. (Nose and Throat.) 5–7 P.M. Mr. J. Griffith: Class. Practical Ophthalmology. Demonstration V.

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

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The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

Communications, Letters, &c., have been received from—

A.—Mr. E. A'cott, Lond.; Alpha, Sheffield; A. L.; Dr. A.; Dr. J. F. Armstrong, South Shields; A. H. B.

B.—Mr. C. Birchall, Liverpool; Dr. W. Broadbent, Brighton; Mr. T. Bryant, Lond.; Messrs. Best and Lloyd, Birmingham; Professor Boyce, Liverpool; Mr. S. H. Benson, Lond.; Mr. C. F. Beadles, Lond.; Mr. A. Browning, Leyton; Messrs. J. H. Booty and Son, Lond.; Bristol City Health Department, Secretary of; Messrs Blows and Maltby, Lond.; Mr. L. A. Bidwell, Lond.

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E.—Dr. J. F. H. Ellerton, Leamington; E. J. T.; E. K. C.

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